

# DISTRIBUTION AGE

AUGUST, 1947



THIS MONTH: HIGHWAY TRANSPORTATION

# Profits are Measured in Minutes



In warehouse and terminal work, it's handling time that cuts down profit margins . . . how much time is spent on handling is determined by the method of handling.

You can do it the long, hard way . . . using manual methods or obsolete handling equipment. Or you can choose the swift, easy method . . . using Towmotor Fork Lift Trucks and Accessories.

There's a Towmotor Fork Lift Truck or Accessory designed to cut handling time to a minimum, provide systematic storage that speeds up movement of merchandise through warehouses and across docks. A Pocket Catalog lists the complete Towmotor line . . . send for your copy today. Towmotor Corporation, Division 19, 1226 East 152nd Street, Cleveland 10, Ohio.

SEND FOR SPECIAL BULLETINS DESCRIBING THE **TOWMOTOR** REVOLVING CARRIAGE • SIDE SHIFTER  
UNLOADER • UPENDER • SCOOP • CRANE ARM • EXTENSION  
FORKS • EXTENSION BACKREST • RAM • OVERHEAD GUARD



## TOWMOTOR

### FORK LIFT TRUCKS *and* TRACTORS

RECEIVING • PROCESSING • STORAGE • DISTRIBUTION



# 2 STEPS in Cutting Costs of handling bagged material

1

## Install BAKER Fork Truck and Pallets

This will eliminate the back-breaking labor of handling individual bags manually, cut time and cost of car-loading or unloading, add storage space by tiering, and speed inter-department handling.

2

## Get Suppliers to Palletize Shipments

This will cut time and cost of unloading incoming material. Supplier will make corresponding savings at shipping end with Fork Truck-Pallet combination. Damage in transit minimized.



*Baker Fork Truck tiering pallet loads of bagged starch in storage. Note method of "locking" sacks to prevent side-slipping.*

**A**T THE ERIE, PA. PLANT of one of our customers, raw materials such as clay, starch and talc, are received in bags. A typical carload will contain some 1600 bags, weighing about 50 lbs. each. These bags must be unloaded, stored, and transported to process departments as required.

This company took Step No. 1 years ago, and from the receiving point all bagged materials are carried in unit loads on pallets by fork truck. This has resulted in substantial savings each time the material is handled and has increased warehouse capacity by permitting high tiering. But bags not on pallets when they arrive must first be palletized—an operation requiring about 14 hours per car.

Step No. 2 is now under way. Arrangements are being made with all suppliers of bagged materials, to ship in unit loads, on pallets. Such carloads can be completely unloaded and stored in not much over two hours—as against 14 hours for palletizing alone. Since no individual man-handling of bags is required, heavy labor is eliminated, and damage from handling and shipping is minimized. Comparable savings are realized by suppliers at the shipping end, making it possible to improve deliveries.

Savings possible by complete palletization are demonstrated at the same plant in the case of shipping cartons. For these, which arrive in "knock-down" condition, the company furnishes the supplier with special four-way pallets—and the "flats" arrive in unit loads strapped to these pallets. Unloading and warehousing now takes about three hours per car, where formerly, when "flats" were received unpalletized, it took 24 man-hours for the job.

*Let a Baker Material Handling Engineer show you how you can save money with fork trucks and pallets.*



Members:

Electric Industrial  
Truck Association

**BAKER INDUSTRIAL TRUCK DIVISION** of The Baker-Raulang Company  
2176 WEST 25th STREET • CLEVELAND, OHIO  
In Canada: Railway & Power Engineering Corporation, Ltd.

1900-1-47

# Baker INDUSTRIAL TRUCKS

# Announcing The New

IMPROVED WAR-PROVED

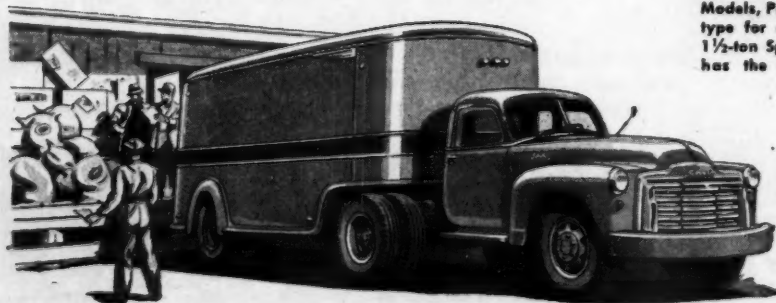
# GMCs



**THERE'S A**  
*Better Looking*  
*Better Riding*  
*Better Built*  
**GMC FOR YOUR JOB**

New light and medium duty GMCs bring truck styling, comfort, safety and stamina to a new all-time high. All-steel cabs are  $3\frac{3}{4}$  inches longer and  $9\frac{1}{2}$  inches wider than prewar. They have new tubular frame adjustable seats with nearly double the number of seat springs . . . new windshields that are  $5\frac{1}{2}$  inches wider and 2 inches higher . . . new larger doors and windows . . . new ventilation with provision for fresh air heating . . . new insulation, sound-proofing and weather sealing. And these new GMCs have many improved, war-proved engine and chassis advancements. See your GMC dealer . . . now . . . and get complete details!

GMC TRUCK & COACH DIVISION • GENERAL MOTORS CORPORATION



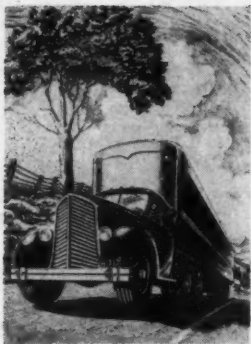
The new GMC light and medium duty line includes Tractor Models, Pickups, Platforms, Stakes, Panels, etc. . . a truck type for every type of hauling. Illustrated is the new  $1\frac{1}{2}$ -ton Special Tractor Model of 149" wheelbase, which has the recommended 72" CA dimension, standard.

THE TRUCK OF VALUE



GASOLINE • DIESEL

DISTRIBUTION AGE



# DISTRIBUTION AGE

The Magazine That Integrates All Phases Of Distribution

100 E. 42nd St., New York 17

## THIS MONTH'S COVER

Features HIGHWAY TRANSPORTATION,  
one of the distributive activities.

**H. S. WEBSTER, JR.**

Vice President and General Manager

**D. J. WITHERSPOON**

Editor

**GEORGE POST**

Assistant Manager

o o o

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Special Correspondents: Arnold Kruckman, Washington, D. C.; Fred Morish, New York; Randall R. Hewerd, Chicago; R. Raymond Kay, Los Angeles; H. F. Reeves, Detroit.

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**STATEMENT OF POLICY** . . . Our policy is based on the premise that distribution embraces all activities incident to the movement of goods in commerce. If distribution is to be made more efficient and economical, we believe business management must consider more than sales, because more than sales are involved. Marketing, while vital, is one phase only of distribution; seven other practical activities not only are necessary but condition marketing costs. Most commodities require handling, packing, transportation, warehousing, financing, insurance, and service and maintenance of one kind or another before, during or after marketing. We regard all of those activities as essential parts of distribution. Hence, the policy of DISTRIBUTION AGE is to give its readers sound ideas and factual information on methods and practices that will help them to improve and simplify their operations and to standardize and reduce their costs in all phases of distribution.



# DELTA



## CUTS AIR FREIGHT RATES

Reductions up to **25%**

Give You **AIR SPEED** at Costs

Competitive with Fastest Surface Means

Delta rates for Air Freight have been slashed from 20 to 25 per cent over the entire system. With this reduction, Delta Air Freight now comes down near the costs for the fastest surface means. Yet, via Delta, you save from one to seven days on all shipments. At these low costs, you can now ship hundreds of additional products economically by air.

Delta Air Freight moves on every passenger schedule, with a capacity up to 7,000 pounds per plane. An optional pick-up and delivery service gives you maximum door-to-door speed. Specify Delta for all shipments to and through the South. It is the fast route from the West and Midwest through Chicago, Cincinnati and

Knoxville, and from the Far West through either Chicago or Dallas and Fort Worth.

For full details of schedules and new point-to-point rates between all cities, call any Delta office or write Air Freight Supervisor, Delta Air Lines, Atlanta, Georgia.

**NOW**  
One Rate Only  
Above 100 Pounds

With the new rates effective August 1, there is now only one straight rate for all shipments of 100 pounds and over. Thus you get the lowest possible ton-mile rate, whether shipping only 100 pounds or ten tons.

Delta has no special commodity rates. All types of cargo fly at exactly the same low rate.

This table shows sample savings from the reduced rates. Then compare these new tariffs with surface means, to see the full value in time and money of Delta Air Freight.

FOR 100 POUNDS BETWEEN	NEW RATE	OLD RATE
Atlanta—Chicago	\$6.55	\$8.45
Chicago—Miami	12.30	16.40
Atlanta—Cincinnati	4.55	5.80
Cincinnati—Chicago	3.07	3.81
Atlanta—Dallas	8.00	10.44
Dallas—New Orleans	5.05	6.46



# Delta

AIR LINES

# LIFE INSURANCE EXPERTS PROVE FORD TRUCKS LAST UP TO 19.6% LONGER!



**N**O LONGER need you guess about which make of truck to buy! Now you can know, beforehand, *which* one of all five sales leaders has delivered the longest service, which has the longest life-expectancy! Ford!

And the proof is *certified proof*! Certified by the same scientific methods used by life insurance companies in computing their rates!

**4,967,000 Trucks Studied.** Wolfe, Corcoran and Linder, noted New York Life Insurance Actuaries, assembled the records of all trucks of the five sales leaders registered from 1933 through 1941—a total of 4,967,000 trucks! Then they prepared *truck* life-expectancy tables in the same identical manner in which they prepare *human* life-expectancy tables for life insurance companies.

**Ford Wins!** Up to 19.6% longer life for Ford Trucks! Up to 19.6% longer life than the four other sales leaders! That's what the certified truck life-expectancy tables prove! The reason? Ford knows how to build trucks to last longer. Ford Trucks are built stronger! See your Ford Dealer today. He'll show you why it's good business to wait for the truck with the longest life-expectancy—Ford!

## Certified proof

### FORD TRUCKS LAST LONGER

#### The life-expectancy of a Ford Truck is:

- 13.1% longer than that of Truck "B"
- 3.2% longer than that of Truck "C"
- 7.6% longer than that of Truck "D"
- 19.6% longer than that of Truck "E"

#### OFFICIAL ACTUARIAL CERTIFICATE

Based on the application of sound and accepted actuarial methods to the actual experience as measured by truck registrations, we hereby certify that, in our opinion, the accompanying table fairly presents the relative life-expectancy of the trucks involved.

**WOLFE, CORCORAN AND LINDER**  
Life Insurance Actuaries, New York, N. Y.



# Washington



*\* One of a series of advertisements based on industrial opportunities in the states served by the Union Pacific Railroad.*

**W**ATER POWER is one of Washington's most important industrial advantages. Two of the world's greatest dams, Grand Coulee and Bonneville, make it possible to offer industry unusually low electric power rates.

Lumber, coal, iron, nickel, chrome, aluminum—and other basic metals—are available "on the ground floor" for industrial purposes.

The state's tremendous yield of fruits and vegetables, together with seafood, offers an imme-

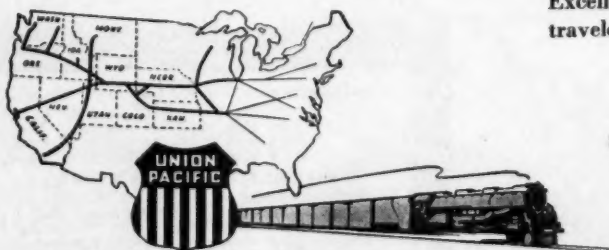
diate supply to concerns engaged in processing and packing.

Washington's population has shown a great growth; providing a large local consumer market and source of industrial workers.

The state also is a gateway to the Orient for export business.

From a viewpoint of good living, the Evergreen State offers a year 'round scenic playground . . . excellent educational and cultural advantages.

Excellent rail transportation, for shippers and travelers, is provided by Union Pacific.



*\* Address Industrial Department, Union Pacific Railroad, Omaha 2, Nebraska, for information regarding industrial sites.*

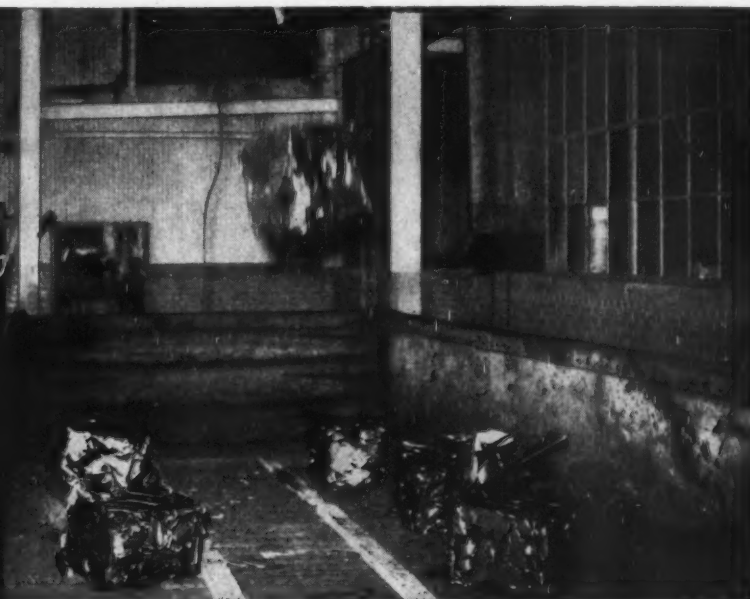
**UNION PACIFIC RAILROAD**  
 THE STRATEGIC MIDDLE ROUTE



# New **NAILABLE STEEL FLOORING**

for a new low in car maintenance costs!

Even after heavy impact-loading like this, Nailable Steel Flooring retains a surface suitable for all types of freight — finished goods that must be blocked, fine bulk freight requiring a tight surface, rough heavy materials that chew up less durable flooring. The floor remains generally flat throughout its length—provides a good surface for skidded loads.



A special plastic material in the nailing grooves between the channels seals itself when the nails are withdrawn, maintaining a tight floor at all times. Securely welded to the underframe, the channels act as a rigid, horizontal diaphragm and strengthen the entire car.



Nailable Steel Flooring is cold-formed from tough, corrosion-resistant N-A-X HIGH-TENSILE for high cantilever strength, impact-resistance and wearability. It's flat and smooth—can't be ripped up by unloading tools. Under normal operating conditions it's expected to last as long as the car itself. Cars decked with Nailable Steel Flooring spend less time on the rip tracks and in the shops—save dollars in floor repair and replacement costs.

## **REDUCES OPERATING COSTS AND DAMAGE CLAIMS, TOO!**

Because it handles *all* types of gondola and boxcar freight, Nailable Steel Flooring cuts down switching and assembly operations and empty car movement. Turn-around time is lowered, car supply improved, operating costs reduced!

Nailable Steel Flooring has no splinters or sharp edges to rip sacked goods. Spilled liquids aren't absorbed. Blocking is more secure, because nails are gripped with greater force than in wood—yet can be readily removed with no damage to the floor. All this means more protection to goods in transit—and fewer damage claims!

In new car construction and old floor replacement, Nailable Steel Flooring can *save money three ways*. Write for descriptive booklet.

# **GREAT LAKES STEEL CORPORATION**

Steel Floor Division, Detroit 15, Michigan • Unit of National Steel Corporation

# keep inventories small!



Distributors are playing their cards close to their chests in today's price fluctuating markets. The smaller the inventory, the less they worry.

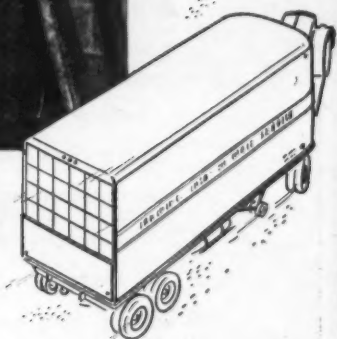
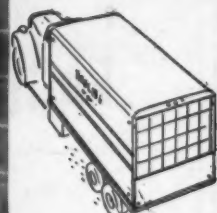
One way to reduce mark-downs is to specify *Capital Airfreight* on all orders. "Order today for delivery tomorrow morning" keeps your stock turning faster, your prices under control and your profits up. And no distributor ever went broke cutting his warehousing and storage costs!

Producers who are alive to modern trends appreciate Capital Airfreight's low cost volume rates and its regular dependable overnight schedules. Capital Airlines maintains a fleet of C-54 Airfreighters with 9-ton capacity — especially designed for quicker handling and stowing of air cargo. To find out how we can meet your specific requirements, call your local Capital Airlines Cargo Representative — or write to:

 **Capital**  
AIRLINES

NATIONAL AIRPORT  
WASHINGTON 1, D. C.

Known for Years as "PCA" . . . America's Second Oldest Airline



## Cut Costs of Loading and Unloading Trucks, Trailers and Cars with Automatic Electric Trucks!

• The system of loading and unloading materials from trucks, trailers and cars offers industry an amazing opportunity to cut handling costs as much as 50% or more and at the same time make labor happy with its new-found freedom from gruelling, manual handling.

Even though the ceiling height in many trucks or trailers is no more than 68 inches, there's an Automatic Electric Truck to tier palletized materials ceiling high and still take full advantage of "sky-high" stacking in your warehouse.

No matter what your product, there is an Automatic Electric Truck that will amaze you in its adaptability to automatically handle

any type of material in any kind of lifting, moving or stacking operation in your plant.

An ATCO specialist will be glad to show you the possibilities of saving time, money and storage space with Automatic Electric Trucks. Mail coupon.



.....

• **AUTOMATIC TRANSPORTATION COMPANY**  
DIV. OF THE YALE & TOWNE MFG. CO.  
 115 West 87th Street, Dept. M-7, Chicago 20, Ill.

• ( ) Send information on Automatic Electric Trucks.  
 • ( ) Have an ATCO Specialist make a free survey of my materials handling costs.  
 • ( ) Schedule me for an early showing of ATCO's new movie, "Pay Loads Pay Off."

• Company Name.....  
 • By..... Position.....  
 • Address.....  
 • City..... Zone..... State.....

.....



**Be Sure to See ATCO'S  
New Film**

**"PAY LOADS... PAY OFF"**



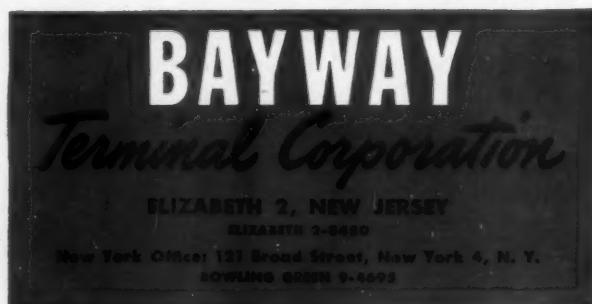
# NEW FACILITIES... EVEN BETTER SERVICE

Big doings are afoot at Bayway Terminal . . . expansion of facilities you'll want to know about if you are interested in open-storage space located in the New York metropolitan area. We have leased additional acreage . . . negotiated for a siding to increase our existing trackage . . . purchased a mobile crane capable of handling lifts of ten tons. Now you can handle all your storage—inside or outside—at one location.

Contact us for full information about the varied and complete storage services "Bayway" can offer you, such as berthage for shipping . . . railroad and lighterage service . . . covered loading platforms for trucks and railroad cars . . . over a million square feet of modern industrial and storage space . . . low insurance rates. We're on New York Harbor, within 30 minutes of Manhattan, on the line of the Central Railroad of New Jersey . . . strategically situated for efficient distribution in this key area.

## FUMIGATION

"Bayway" maintains the largest fumigation plant on the East Coast. Here, material requiring fumigation is quickly, effectively fumigated under Government supervision. No additional handling hazards are incurred. Fumigation and storage space available at one location.



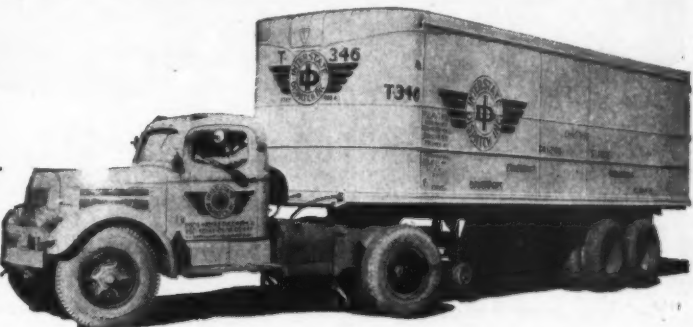
**Consolidated Forwarding Co. Inc., St. Louis, Missouri.** Starting with one wagon in 1884, I. M. Schiebe, President, has built up a highly successful business operating 173 power units between St. Louis and other large midwestern cities. They have found Trailmobiles operate at less cost because they are more durable, pull easier, and require less maintenance.



**V. E. Green, Norfolk, Virginia.** This is an established, highly-regarded concern that hauls large quantities of quality sea-food, fruit and produce to most southern cities. Mr. V. E. Green, the owner, states that "Trailmobile's remarkable ease-of-pull, improved construction, and cooperative service mean more satisfactory trailer performance at lower cost of operation."



**Interstate Dispatch Co. Inc., Chicago, Illinois.** This progressive company provides direct service between Chicago, Cincinnati, Dayton, St. Louis and other cities. They have discovered that the new Trailmobile tandem saves considerable tire expense, thus reducing operating cost. They are also pleased with Trailmobile's efficient and cooperative Branch Service.



## For Lower Operating Cost

# *The Trend is to TRAILMOBILE*

Because Trailmobile offers top performance at minimum operating cost, trailer users coast-to-coast are joining the growing throng of enthusiastic Trailmobile owners.

Why do Trailmobiles cost less to run? There are a lot of reasons! Among the most important is the advanced Trailmobile design—including "diamond" sides and a load-distributing understructure—that

cuts weight, adds to strength and durability, reduces maintenance, and permits bigger payloads. And Trailmobile's undercarriage—the "easiest-pulling in the Industry"—cuts fuel bills to the bone!

No wonder these Trailmobile profit-advantages... plus many other Trailmobile improvements... plus

73 friendly Trailmobile Customer Service Centers... are making Trailmobile salesmen of thousands of trailer operators the nation over.

Visit your nearest Trailmobile Branch today. Find out all about Trailmobile's low operating cost and all the other reasons why the TREND IS TO TRAILMOBILE!

**THE TRAILMOBILE COMPANY—CINCINNATI 9, OHIO**



"When we figured ALL costs,  
we settled on *ELECTRIC TRUCKS.*"

"Yes, Jim, we once slipped on that one, too . . . comparing price-tags only . . . when buying industrial trucks. But a check of overall costs opened our eyes to the real story. 'Matter of fact, on our battery-driven trucks, savings in maintenance and power alone offset the price-tag angle . . . in a hurry! That's one of the reasons why we've settled on 'electrics'."

Familiar testimony from users who have made their own comparison of total costs. Others, who look beyond the price-tag before they buy, see top economy in basic and exclusive features of the electric industrial truck. For example: **LOWEST-COST ENERGY**—electric power at ever-decreasing cost—and

most reliable for all industrial power requirements.

**SIMPLEST, STURDIEST CONSTRUCTION**—the simplicity of electric transmission and control. The inherent stamina of E.I.T.A. Recommended Construction Standards—stamina that costs less than breakdowns in material flow.

**UNEXCELLED PERFORMANCE RECORD**—over 90% of the electric trucks sold in the past twenty years, to more than 300 fields of industry and distribution, *are still in constant service.*

These are some of the values behind the price-tag and behind the swing to electric industrial trucks.



**SEND FOR  
THIS FREE BOOKLET**

You will find tested, how-to-do-it suggestions for raising man-hour and machine-hour productivity—in the **MATERIAL-HANDLING HANDBOOK**. Your letter will bring it.

**DISTRIBUTION AGE**

**THE ELECTRIC INDUSTRIAL TRUCK ASSOCIATION**

2928-D Forty-first Avenue • Queens Plaza • Long Island City 1, N. Y.



**"TWA AIRFREIGHT  
RATES HAVE BEEN  
REDUCED MORE  
THAN 25%!"**

**"Yes—all my air shipping  
needs are handled when  
I call the TWA airfreight  
number because they are  
the air shipping headquar-  
ters of America!"**



**August 1<sup>st</sup> is a Big Day in the History of Airfreight.**

On that date, TWA airfreight rates drop more than 25%.

Simultaneously, TWA and all other scheduled airlines of the United States begin joint operations under a new Consolidated Industry Airfreight Tariff.

Through joint rates with other

carriers, TWA is serving shippers in all corners of the country at one low rate for all commodities.

**AND**

by specifying "Route via TWA" the airfreight shipper is assured fast, courteous handling.

**TWA's the way to Ship—For Airfreight Flies on Every Trip**



**TRANS WORLD AIRLINE**

All TWA flights also carry air mail.

**AUGUST, 1947**

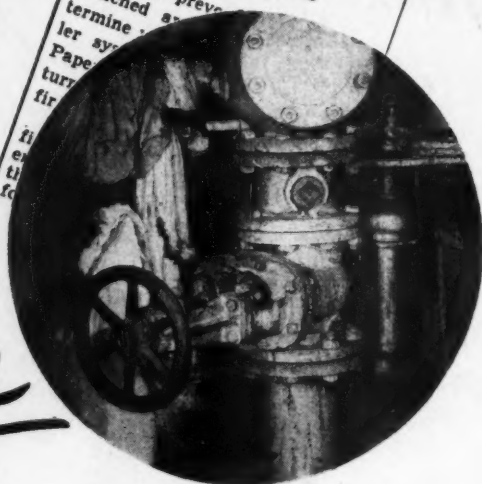


*This  
caused by  
This*

## Sprinkler Found Turned Off At Paper Plant Fire

Prevention Bureau  
Launches Probe Of  
Closed Pipeline

The fire prevention  
launched a probe to  
termine why the  
ler system failed.  
Paper mill  
turned off  
fire  
the  
to



### But There's a Way to Prevent It!

Automatic Sprinkler Systems undoubtedly are the greatest single contribution ever made to fire protection. Yet without water even the most efficient sprinkler equipment is helpless in case of fire.

Closed shut-off valves and other conditions affecting the water supply and its distribution account for most of the destructive fires in sprinklered properties. Regardless of the number or frequency of inspections, there is always the possibility that a valve may be closed accidentally or maliciously *between inspections*. Valves often are closed while repairs are being made and then are left unopened.

ADT Central Station Sprinkler Supervisory and Waterflow Alarm Service provides the most effective assurance that sprinkler valves are kept open.

By means of special electrical supervisory devices installed on the sprinkler system, closed shut-off valves and other abnormal conditions which might impair or nullify the effectiveness of the system are immediately and automatically reported to the ADT Central Station for prompt corrective action.

Waterflow Alarm Service makes the sprinkler system function as an automatic fire alarm, *automatically* summoning the fire department and other protective forces direct to the premises in the event of a fire or a serious leak.

May we tell you how this service can be applied to effect substantial economies while obtaining more complete and reliable protection? Write for descriptive bulletin "Assuring Sprinkler Efficiency."

### ADT SPRINKLER SUPERVISORY AND WATERFLOW ALARM SERVICE

Controlled Companies of **AMERICAN DISTRICT TELEGRAPH CO.** 155 Sixth Avenue, New York  
CENTRAL STATION OFFICES IN ALL PRINCIPAL CITIES OF THE UNITED STATES



*Electric Protection Services*  
**AGAINST FIRE · BURGLARY · HOLDUP**  
A NATION-WIDE ORGANIZATION

# AXIS OF WORLD-TRADE



Port Newark is a vital part of the Port of New York, the world's Number One clearing house of commerce . . . and Newark Tidewater Terminal is one of its key components. Few locations are so fortunate for furthering distribution on the Atlantic seaboard.

This great, modern terminal is now humming to the rising tempo of post-war industrial activity . . . as may readily be understood in the light of its unique advantages. Here you will find ample berthage for deep-water freighters . . . every facility

for the safe, speedy, economical handling, shipping, and storage of all kinds of bulk and packaged products. Personnel are careful and efficient; equipment is truly up-to-date. Insurance rates are low.

Availabilities are becoming increasingly scarce. We would appreciate as much advance notice of your requirements as possible, in order to dovetail our facilities and service into your needs most effectively.

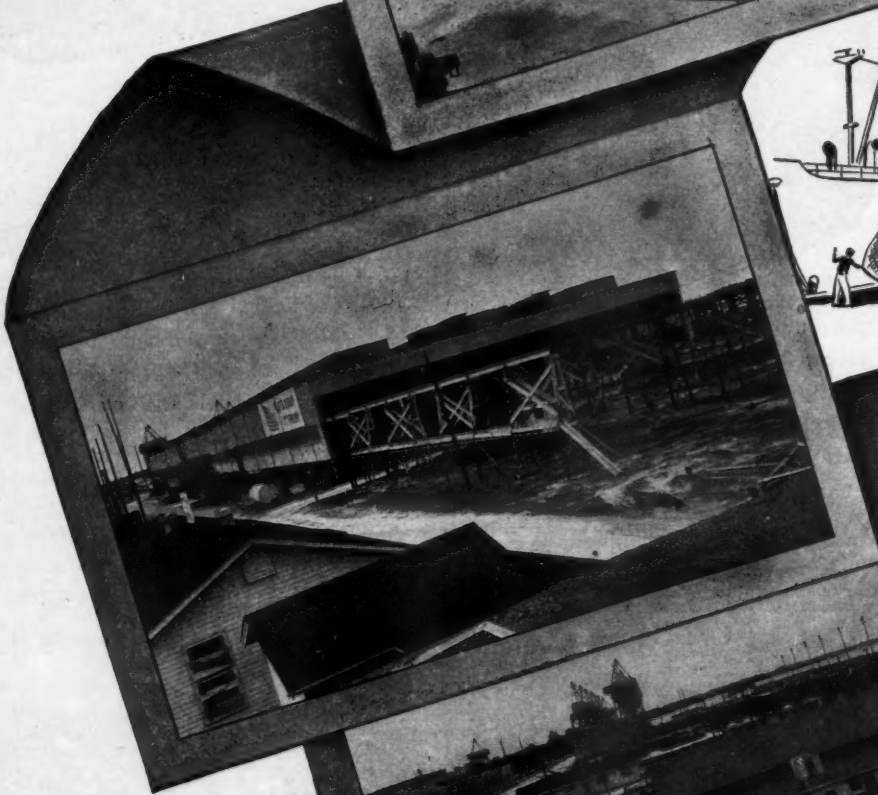
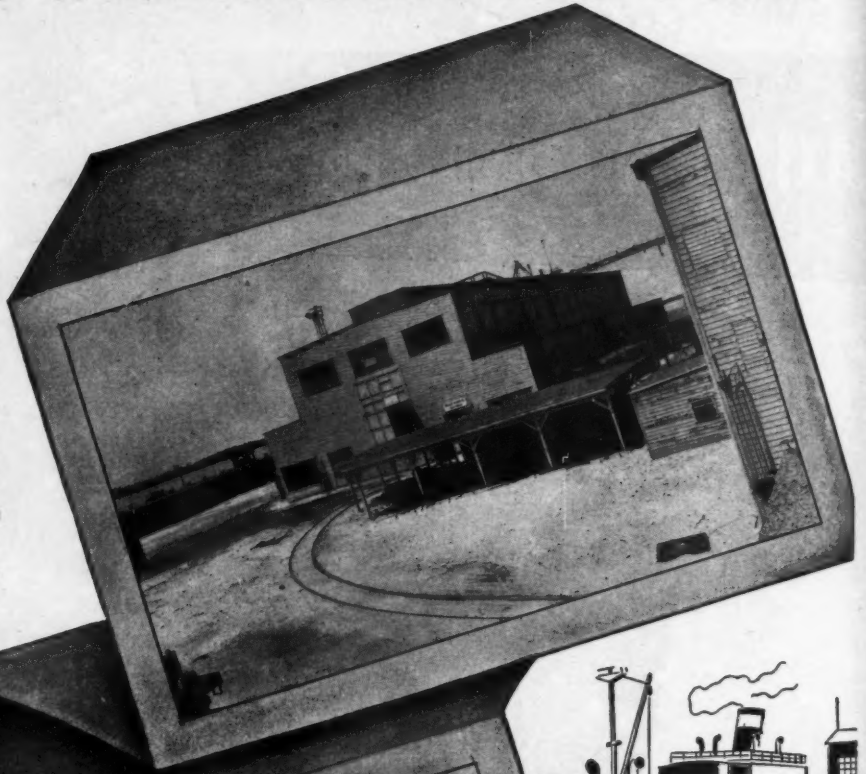


## NEWARK TIDEWATER TERMINAL, INC.

Port Street, Newark 5, N. J. • J. A. LEHMAN, Vice Pres. & Gen. Mgr.



# Here's a "Place in the Sun"



# for your plant

## 14 INDUSTRIAL PROPERTIES AVAILABLE NOW AT PANAMA CITY, FLORIDA

### FOR SALE IN UNITS OF ONE OR MORE

Because of its Florida location on the Gulf, with numerous raw material sources at hand, this property is especially advantageous as a base of operations for: furniture, plywood and veneer producers; box and container manufacturers; cotton garment makers; truck body builders; glass manufacturers; warehouse and marine terminal operators; and export-import concerns.

Divided by units into 14 separate packages, including land and buildings, each unit has special value for some manufacturer aware of the possibilities of location on the Florida coast. Two units front directly on the Gulf. All are physically sound and will require only minimum maintenance over the years. All have access to excellent rail, water and highway distribution channels.

**SEND FOR DESCRIPTIVE BROCHURE.** A special, illustrated brochure, describing this property in detail, with pictures, maps, and complete facts on each unit offered, is yours on request. Write for your copy today.

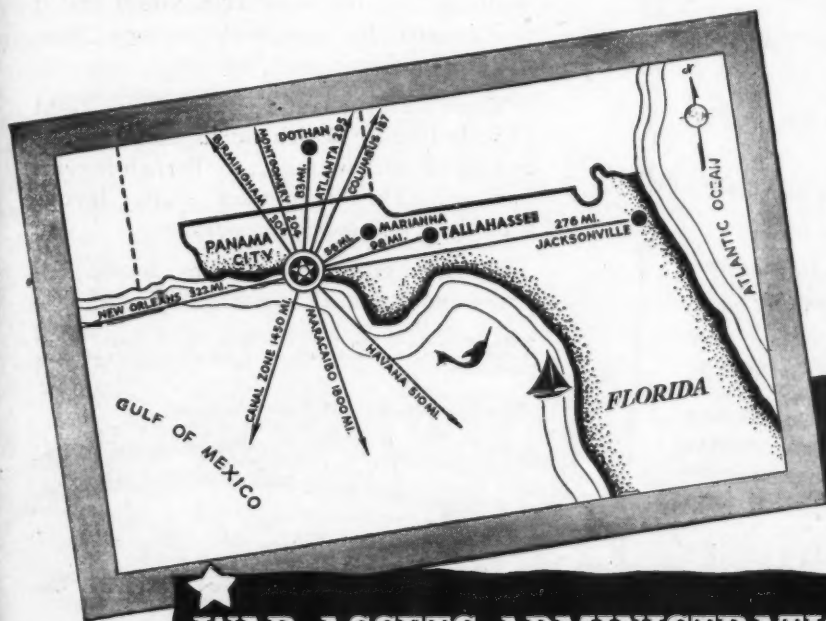
**SEALED BIDS.** Bids will be received on the Standard Bid Forms, which state the terms and conditions of this offer, available at the Jacksonville Regional Office.

The property is subject to the following priorities to purchase in this order: 1. Federal government agencies, 2. R.F.C. for qualified small business, 3. State and local governments. These priorities expire at 9:00 A.M., E.S.T., on August 25, 1947. No lump sum bids will be received from priority holders, but separate proposals for one or more of the segregated portions declared will be accepted.

Bids will be received on Standard Bid Forms from the general public on one or more of the segregated portions, subject to priority holders' exercise of their claims, until 9:00 A.M., E.S.T., on September 18, 1947, at which time all proposals will be publicly opened and read at the Jacksonville, Florida, Regional Office of War Assets Administration. The right is reserved to reject any or all proposals.

Inspection of this offer can be arranged through the Jacksonville Regional Office or the custodian on the site.

Address your request for bid forms and all other inquiries to address below.



**WAR ASSETS ADMINISTRATION**  
OFFICE OF REAL PROPERTY DISPOSAL

115 FLORIDA AVENUE, P.O. BOX 4129, JACKSONVILLE, FLORIDA



# 9 REASONS WHY IT PAYS TO BUY TRUCK BODIES

BY

**FRUEHAUF**

**\$520\***

Delivered at  
Kansas City Factory

- 1 12 - 14 - 16 ft. sizes available in hundreds of combinations.
- 2 Durable, all-steel Aerovan-type construction, including doors.
- 3 Exceptional strength—yet light in weight.
- 4 Side and rear door design to fit user's need.
- 5 Heavy-duty Trailer-type cam door locks.
- 6 Fruehauf's famous steel-ribbed reinforced 1-1/16 inch flooring.
- 7 Available with open or closed tops—one-piece, reinforced roof coving.
- 8 Fruehauf nation-wide Factory Branch distribution centers relieve you of all assembly and mounting work. Also available in K. D. form.
- 9 Top-quality construction—at production-line prices!

**Y**OU know what the name "Fruehauf" means on a Trailer—now, you can buy the same engineering skill in a top-quality Truck Body at a production-line price. With 4-basic models and hundreds of combinations to choose from, you'll find it easy to select the exact body you need from the Fruehauf line.

There's a Fruehauf Factory Branch right in your locality which stocks these models and backs sales with Factory Branch Service facilities. This eliminates costly layups should servicing be necessary.

See these tailor-made bodies now on display at your nearest Fruehauf Branch!

\*Base price 12-ft. van body less doors, K. D. Assembly and mounting on truck chassis ready for finish paint, \$50. additional. Taxes extra.

**SPECIFY FRUEHAUF**  
The Name that Carries Weight!

BODY DIVISION  
**FRUEHAUF TRAILER CO. • DETROIT 32**  
69 Factory Service Branches

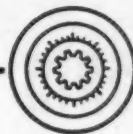


4 Basic Models • • • Hundreds of Combinations

**FRUEHAUF**

**TRUCK BODIES**





## Highway Transportation

**T**HE MOTOR carriers, who have been able to attain their present position of importance by individual effort and without the necessity of recourse to the large-scale financing so essential to the development of the railroads, are, for the most part, individualists. Being individuals, they have been unable to promote favorable legislation or combat the passage of legislation detrimental to their best interests. They long have been viewed by both state and federal politicians, who have realized that highway transportation is too rugged a growth to be easily stunted, as a natural for exploitation: witness the multiplicity of ill-conceived state laws and the piling on of taxation. Congressional committee reports, according to a statement by the National Highway Users Conference, are replete with statements indicating that many of the special federal excise taxes which today are putting an unfair burden on highway users were "imposed as temporary measures solely for the purpose of raising general revenues and to balance the budget during the depths of the depression."

In considering the present position and the future needs of the highway carriers, it is well to keep in mind that the only operational statistics available relate to the operations of Class 1 "for-hire" motor carriers who are required to file detailed annual reports with the ICC. Comparable data for the private carriers and for even the smaller "for-hire" carriers is not available. Despite a lack of detailed and specific information relative to the operations of the private carriers, their role in our transportation system and their importance to the social and economic welfare of the nation should not be underestimated. "About 80 per cent of all trucks registered in the United States," we are told by the American Trucking Assns., Inc., "are owned by private carriers."

Basic needs for more efficient and more coordinated highway transportation include:

1. Strategically situated terminals equipped with modern facilities not only for receiving, handling and dispatching motor freight but for the efficient transfer of it to the other forms of transportation.
2. The development of uniform state laws and acceptable enforcement standards. Present conflicting and restrictive state laws relating to the size, weight and movements of motor carriers are preventing standardization and simplification of equipment and of freight handling techniques. Although some cooperative effort to bring about more uniformity in the size and weight of trucks is being

made through legislative action by the various states based on the recently approved AASHO code, much still remains to be done.

3. Systematic highway construction and the proper allocation of the cost of such construction among private motorists, truck operators and general taxpayers.
4. The reappraisal of fundamental factors involved in the present rate structure. This reappraisal should take into consideration the interests of both shippers and carriers. Recognition should be given to the need of the carriers for revenue sufficient to enable them to provide economical and efficient service now and in the future. Rates should be determined by the inherent requirements of the situation rather than by competitive pressures and interests.
5. Reconsideration by the Congress of the present tax situation. Federal taxes and special levies on new motor vehicles and trailers, gasoline and oil, tires and tubes, and parts and accessories, amounted to more than 800 million dollars in 1946 and revenues are expected to be even greater in 1947. Much of the revenue derived from this taxation is diverted to projects unrelated to highway transportation; since 1935, well over a billion dollars have been so diverted. This question of taxation, is a source of endless controversy. However, since many of the federal excise taxes were imposed as temporary emergency measures, the subject should be reviewed, the facts determined and inequalities ended.
6. An improved credit position. Much motor carrier credit is vended, rather than established banking, credit. In many cases, adequate reserves for the replacement of worn out equipment and facilities do not exist. An improved credit position, cash reserves and better financial support by bank funds and private capital are required.
7. Fair and efficient public regulation based on an understanding of the inherent requirements of highway transportation in relation to the best interests of the public.

*D. J. Witherspoon*

Editor

# DA NEXT MONTH

# LETTERS to the Editor

**DISTRIBUTION AGE** for September will describe systems and equipment currently used or proposed for more effective operations in the different departments of distribution. Some of the features scheduled include: **SYSTEMS AND EQUIPMENT FOR ACCOUNTING, STATISTICAL AND OPERATIONAL CONTROL . . .** by staff consultants and leading authorities in distribution cost analysis and control. Present day operating conditions, involving product and materials shortages, relatively inexperienced sales and clerical help, higher wages and shorter hours, make economical and efficient processing a must.

**SETTING UP A SALES RECORD SYSTEM . . .** by Julius B. Kaiser. The law relating to the sales of trademarked articles necessitates, in many cases, the preservation of special records. Just what these records are and how they best can be preserved is the theme of Mr. Kaiser's interesting article.

**MATERIALS HANDLING DURING INVENTORY . . .** by Benjamin Melnitsky, special correspondent. Inventory entails much handling, moving and transferring of stock and the employment of many materials handlers and much mechanized equipment. A systematized approach to this major, accelerated materials handling undertaking is outlined by Mr. Melnitsky.

**A REVOLUTIONARY DISTRIBUTION PROGRAM . . .** by C. J. Whipple, chairman, Hibbard, Spencer, Bartlett & Co., who discusses basic departures from established wholesale hardware warehousing and handling practices in order to (1) cut costs, (2) speed customer shipments, (3) reduce general operating overhead, (4) create more favorable employee working conditions and (5) achieve more coordinated and economical distribution.

**A TOOL FOR MARKET ANALYSIS . . .** by Alfred W. McQuillan, Jr. The old established relationships between markets and buyers no longer prevail because of (1) the increase in population, (2) the migratory shift in population and (3) higher level of national income. Mr. McQuillan discusses a useful technique for relating current statistics to the problem of marketing.

## Wirebounds

Sir:

The story "Why Wirebounds Are Winners" in the June issue of **DISTRIBUTION AGE** was swell!

Here are a couple of copies of the June "Wirebound Newsbox" which we edit for the Wirebound Box Manufacturers Assn. for its members. It was out a few days before we got our copy of your magazine, so the recipients were inspired, we hope, to go out and get their copy.

We wonder if it would be possible to get 500 reprints of "Why Wirebounds Are Winners" to be mailed by us to member firms of the Association and their employees.

—G. Cornwall Spencer, Account Executive, Theodore R. Sills & Co., Chicago.

**Editor's Note:** The item appearing in the June issue of "Wirebound Newsbox," published by the Wirebound Box Manufacturers Assn., to which Mr. Spencer refers is as follows:

"Perhaps even before you receive this copy of the Newsbox, 'DISTRIBUTION AGE' will be out with its June issue, which includes a beautiful story entitled: Why Wirebounds are Winners!

"The article starts with a two-page 'spread' featuring several pictures of wirebound containers in actual use, including, of course, the prizewinning crate used by the Seeger Refrigerator Co. of Evansville, Ind., which won first prize in late April at the IPEAA shipping container contest in Chicago.

"The story on wirebounds is an outstanding feature of a special edition on packing and packaging which will be of great interest to everyone in the shipping container field."

o o o

## Malone and Tariffs

Sir:

It has been suggested that we write and ask you for several copies of the June number of your magazine which has the article telling about Senator George W. Malone.

We would very much appreciate having them.

—Office of Senator George W. Malone.

**Editor's Note:** Copies of the June issue of **DISTRIBUTION AGE** have been forwarded to the Senator.

o o o

## Down to Cases

Sir:

We read in your "Getting Down to Cases" (June issue) about the Duquoin Packing Co. v. Bonifield case where Bonifield accepted, as a common carrier without refrigeration, sausage which spoiled.

If Bonifield has a restriction in his tariff stating that neither heater service nor refrigeration would be pro-

vided, do you feel that the Bonifield Truck Lines would then have been held liable?

It would appear that if Bonifield had a restriction in his tariff where it provided that no refrigeration or heater service would be provided by the carrier then it would be absolved of any possible liability.

—Alex K. Scherer, President, Scherer Freight Lines, Ottawa, Ill.

**Editor's Note:** This letter has been forwarded to Mr. Parker for his reply.

## Truck Leasing

Sir:

Your issue of Nov., 1946 carried an article on truck leasing by Martha Dunlap, executive secretary of the National Truck Leasing System, Chicago. We are interested in securing further information on this matter and would appreciate your advising us where Miss Dunlap may be reached.

—D. C. Philips, Elwell, Philips & Co., Inc., Elizabeth, N. J.

**Editor's Note:** The National Truck Leasing System is located at the Finchley Bldg., 23 E. Jackson Blvd., Chicago 4, Ill.

## Adhesives

Sir:

Kindly refer this request for information to manufacturers who can supply the adhesive to which you refer on p. 48 of the Feb., 1946 issue of **DISTRIBUTION AGE**. We are interested in making test with this high shear strength, low tensile strength adhesive for glued unit loads, and wish to have a five gallon sample shipped to us for use by various shippers in Honolulu. Full information as to application methods would be appreciated.

—Edward M. Freyer, acting freight traffic superintendent, Inter-Island Steam Navigation Co., Ltd., Honolulu.

**The manufacturer's reply:**

We are sending you a five gallon sample of Load-Lok Adhesive gratis. The use of Load-Lok Adhesive by any method other than by some controlled mechanical device is not too satisfactory due to the fact that either too much or too little adhesive is used. We therefore recommend that a few applicators be made up. If you run some tests using a brush or spray gun, we recommend that the adhesive be diluted at least 20 percent and that a minimum amount be applied. If the glue is applied by brush a very small brush should be used to apply a film of adhesive not over 1/4 in. wide. We trust it will be possible for you to have one or two applicators made up, as it should not take more than a few hours to do so.

—H. Johnson, National Adhesives Division.



# ... Safety in full measure



● Protection against fire and explosion reaches a new high in the Mack Safety Fuel Tank. Here are some of its outstanding safeguards.

**Crash Resistant!** Greater strength and maximum resistance to crash is provided by its cylindrical form... with convex ends... and electrically welded construction.

**Spill-Proof!** Spillage with resultant fire hazard in case of overturn is prevented by a tight-seal filler cap and by a separate vent with ball valve which seats by gravity if the tank is turned over. This valve also checks spillage from internal heat pressure because, above a certain pressure, it seats and seals off the vent.

**Non-Explosive!** Vent holes in the filler tube are so placed that adequate air space is secured at the top of the tank. This provides a cushion against concussion in case of impact. In addition, rupture from excess internal heat pressure is prevented by a fusible plug which melts above a certain temperature.

The Mack Safety Fuel Tank is built complete in Mack factories. Its design and construction are further evidence of the extra care — in every part — that goes into the making of a Mack.



## Mack

**since 1900, America's hardest-working truck**

Mack Trucks, Inc., Empire State Building, New York 1, New York.  
Factories at Allentown, Pa.; Plainfield, N. J.;  
New Brunswick, N. J.; Long Island City, N. Y. Factory  
branches and dealers in all principal cities for service  
and parts. In Canada, Mack Trucks of Canada, Ltd.

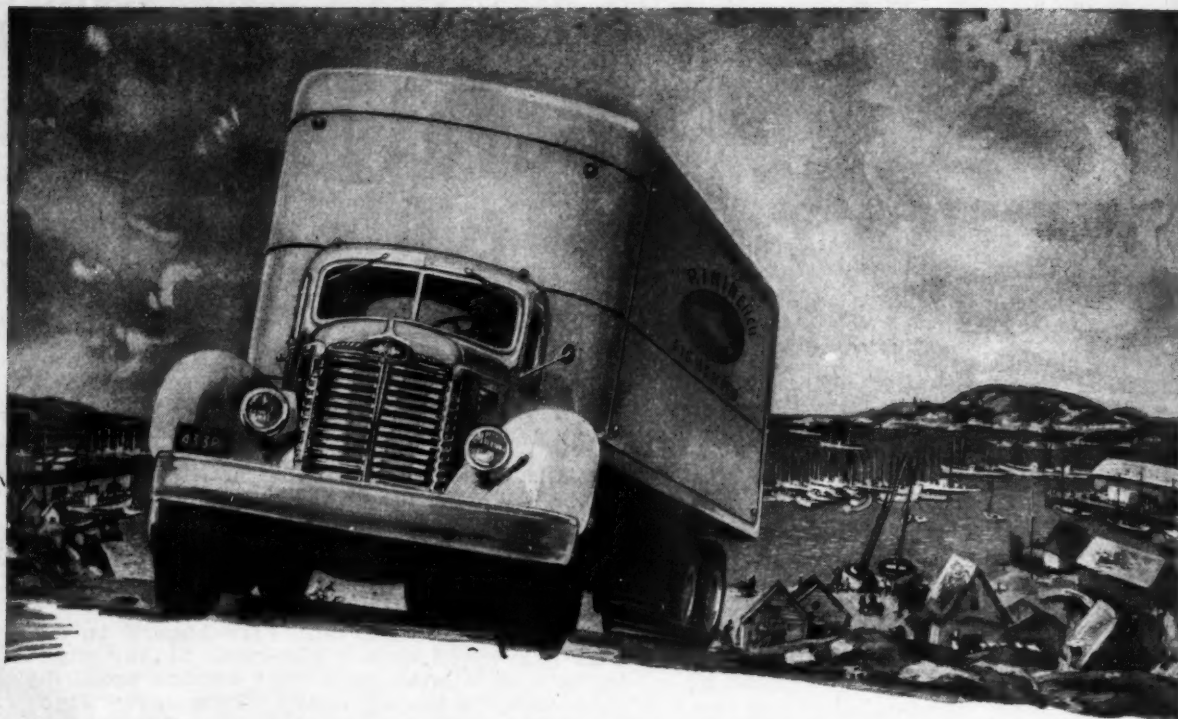
**Trucks for every purpose**



Air freight pick-up and delivery is the up-to-the-minute assignment of this Mack truck operated by Security Storage and Van Co. of Norfolk, Va. The company has a contract for this service with Capital Airlines and National Airlines for the Hampton Roads area.

5257-3





**They Transport "Flesh, Fowl and Good Red Herring"**  
**Yes, IN INTERNATIONAL'S BRILLIANT, NEW**  
**KB LINE IS THE RIGHT TRUCK FOR EVERY JOB**

Pictured here is a new International KB Truck Tractor on an inland run from the sea—a fast run so that the seafood can reach its destination with all the sea goodness intact.

Seafood is only one commodity in the truck transport field. But the picture emphasizes how completely the 15 basic models in the new International KB Line serve all factors of highway transport.

Gross vehicle weight ratings of the new International KB Models range from 4,400 to 35,100 pounds. In the 15 models are incorporated many features and improvements. Advanced styling makes them prestige-builders

for their operators on any highway.

Now add this fact: International Engineers are masters at *specializing* trucks to their jobs. And International *specialization* means maximum loads in terms of the conditions under which trucks operate; long, trouble-free service; and low operating and maintenance costs.

So see your International Dealer or Branch promptly about new KB Model Internationals—the finest values in 40 years of International Truck history.

Motor Truck Division  
**INTERNATIONAL HARVESTER COMPANY**  
 180 North Michigan Avenue Chicago-1, Illinois



**40TH ANNIVERSARY OF INTERNATIONAL TRUCKS—1907-1947—**  
 Forty Years of International Truck Service to Industry, Commerce and Agriculture  
 Tune in James Melton on "Harvest of Stars" Sunday! NBC Network



**INTERNATIONAL Trucks**

DISTRIBUTION AGE

# CURRENT TRUCKING TRENDS

**A discussion of current trends and developments and future needs of the motor carrier industry which today is hitting an all-time high in respect to shipping volume and number of vehicles.**

By TED V. ROGERS

President  
American Trucking Assns., Inc.



AMERICA'S trucking industry today is operating at an all-time high, both as to volume of business and the number of vehicles in use. Although it is too early for observers in the industry to make an accurate evaluation of the effect that World War II had upon truck transportation, it seems probable that historians will record an effect very similar to that of World War I. The trucking industry was born soon after the first automobiles were sold during the 1890's, but until the war brought on a transportation emergency in 1917, the use of trucks was localized pretty

much within urban areas. Then, during those hectic war years, when the Government took over the railroads in an effort to break the transportation jam, the men who were operating America's two or three hundred thousand trucks learned, by necessity, that they could go farther afield.

Those pioneers soon convinced the government and private shippers that they could perform a valuable long-haul service. Truck

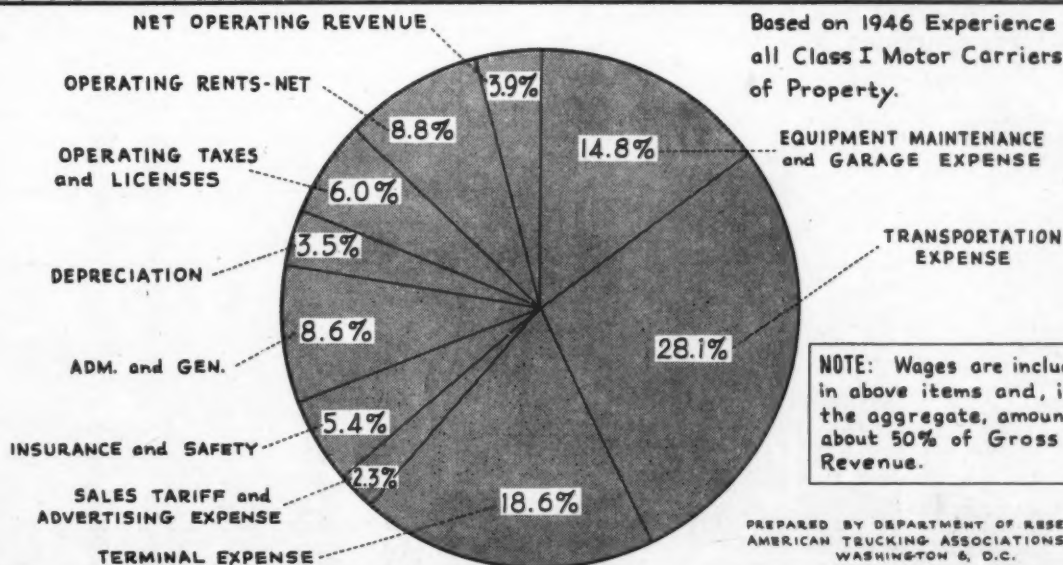
transportation was—and is—economical, efficient and fast. But in the early days, one essential factor was lacking. That was reliability. After the first World War, however, three factors conspired to free the motor truck from its dependence on the home terminal and make it a reliable form of transportation between cities as well as within a single city. They were the pneumatic tire, hard-surfaced highways and vast improvements in dependability of the truck itself.

In those days a truck was a truck. Today there is almost no such thing as a "standard" truck. The variety of options available to the purchaser are so great that the individual operator can buy a truck in almost every tonnage clas-

Graphs used to illustrate this article are taken from the publication, "American Trucking Trends," issued by the American Trucking Assns., Inc., Washington, D. C.

## THE MOTOR CARRIER REVENUE DOLLAR AND WHERE IT GOES

Based on 1946 Experience of all Class I Motor Carriers of Property.



NOTE: Wages are included in above items and, in the aggregate, amount to about 50% of Gross Revenue.

PREPARED BY DEPARTMENT OF RESEARCH  
AMERICAN TRUCKING ASSOCIATIONS, INC.  
WASHINGTON 6, D.C.

sification to fit his own specifications. Just before the second World War halted production of most civilian trucks, the prospective buyer could get some 3,999,360 "possible" combinations.

Along with the tremendous improvements in performance and durability of motor vehicles, the manufacturers succeeded also in developing vehicles and trailers which cost at least 30 per cent less to operate than did those of 25 years ago, considering all factors of ton-mile costs.

For example, truck engines 25 years ago used about six quarts of lubricating oil to every 100 gallons of fuel when the engines were in good condition. Usually, an operator was quite satisfied if engines used no more than 12 quarts of oil to every 100 gallons of gasoline. The ratio of oil to fuel in present-day, average-size truck engines, on the other hand, runs not more than one quart to 100 gallons of fuel. Even in the last ten years, oil consumption has been reduced by 50 to 80 percent. Besides, the great durability of the modern truck engine insures that good oil economy will be maintained over longer periods of time without the frequent engine over-

hauls necessary in the early days of the motor truck.

For every dime the operator of a modern truck has to spend on service, per mile, the operator 25 years ago would have had to spend a dollar. Truck engines then were overhauled about every 20,000 to 40,000 miles, but present engines designed for use in truck and bus service are expected by the operator to run at least 75,000 to 100,000 miles before requiring major service. In addition, there has been a big reduction in the cost of servicing engines when it does become necessary.

An idea of the durability of motor trucks may be gathered from truck registrations. In 1941, truck registrations in the United States totaled close to five million vehicles. That figure equals all truck factory sales for the six years 1936-1941 inclusive, plus a good portion of the 1935 output.

Many a truck on the highway today has passed the million-mile mark and 500,000 miles per truck is considered "easy." In the 1920's, an annual mileage of 10,000 to 20,000 was something to brag about, but today many trucks cover 100,000 miles and more each year.

As the cruising range increased, trucks made longer and longer runs. Nowadays, of course, many of them are equipped with sleeper cabs, and one driver sleeps while the other drives. In general, trucks today can haul twice the payload at twice the average speed, compared with the vehicles of the twenties.

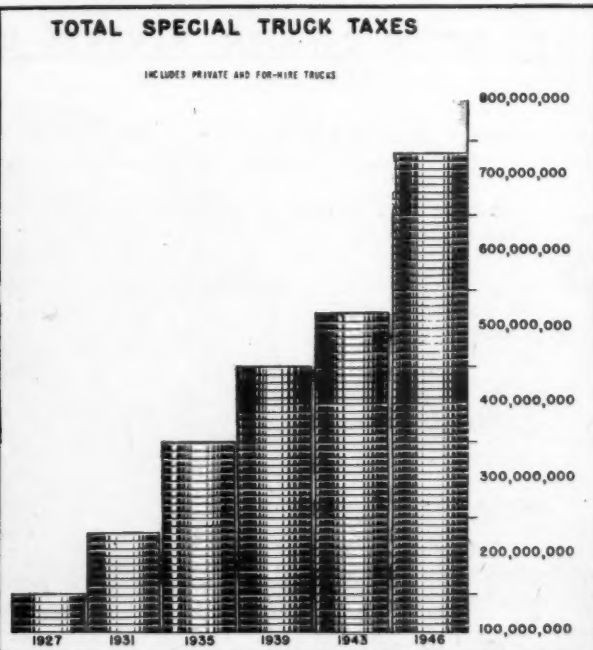
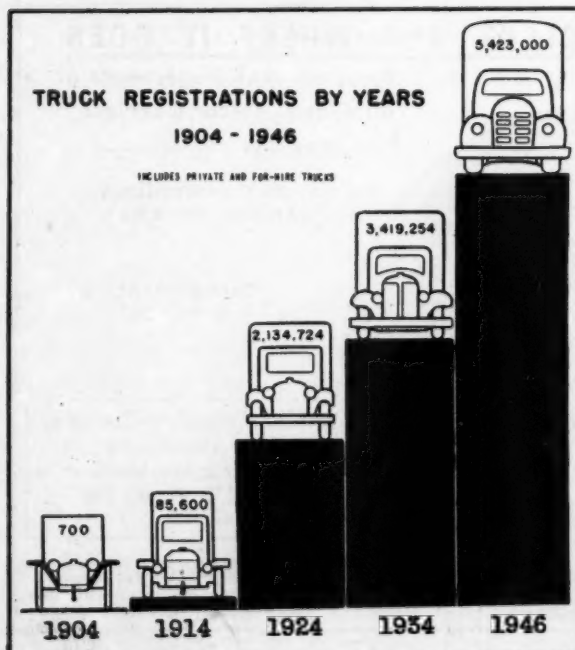
Development of better trucks made it possible for the truck operators to perform a better service, and demands for this service increased. The number of vehicles in use climbed to one million by 1920, went up to more than two million by 1924 and was close to 3.5 million by the end of the decade. The rate of expansion was retarded in the early thirties by the depression, but the total reached four million in 1936 and was up to 4,876,000 in 1941, the last year of civil truck production.

World War I, then, served as a spur. The growth in the next two decades was phenomenal. Inter-city ton-miles for all trucks increased from 11,422,000,000 in 1925 to 44,227,000,000 in 1941—a four-fold increase! Not even the most optimistic truck operator,

(Continued on Page 82)

Figures from 1904 through 1920 are estimates by Automobile Mfrs. Assn.; figures from 1921 through 1946 from U. S. Public Roads Administration.

Includes state registration fees, state motor carrier and trailer fees, state gasoline tax, Federal excise taxes, special city and county taxes, bridge, tunnels and ferry tolls.—Public Roads Administration, Bureau of Internal Revenue, and Automobile Mfrs. Assn.





## FOR-HIRE TRUCKLOADINGS BY YEARS

Based on monthly surveys by the Department of Research, American Trucking Associations, Inc. The monthly average for the three years 1938-1940 represents 100.

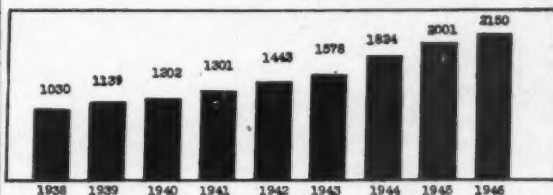


## NUMBER OF CLASS I CARRIERS

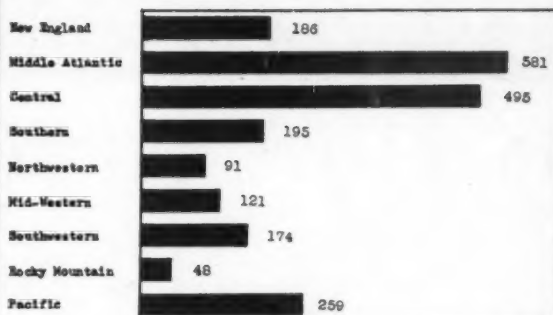
(Definition: Class I carriers are those carriers having annual gross operating revenues of \$100,000 or more)

### CLASS I MOTOR CARRIERS OF PROPERTY

By Years — 1938 — 1946



By Regions — 1946  
(Estimated)



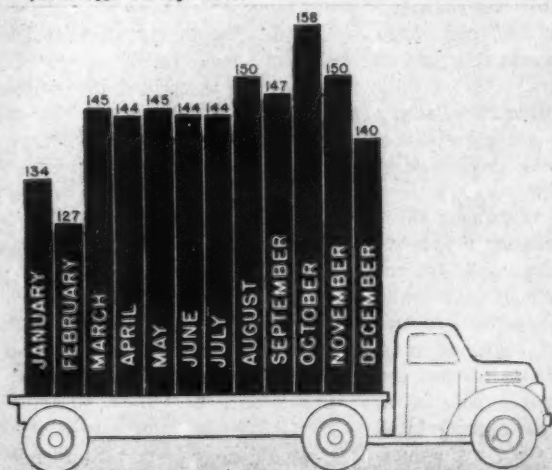
Source: Interstate Commerce Commission, Annual Reports to Congress.

Figures for trucking industry compiled by A.T.A. Dept. of Research from data contained in reports to the Interstate Commerce Comm. by Class I motor carriers of property. The figure for all private industry from U. S. Dept. of Commerce.

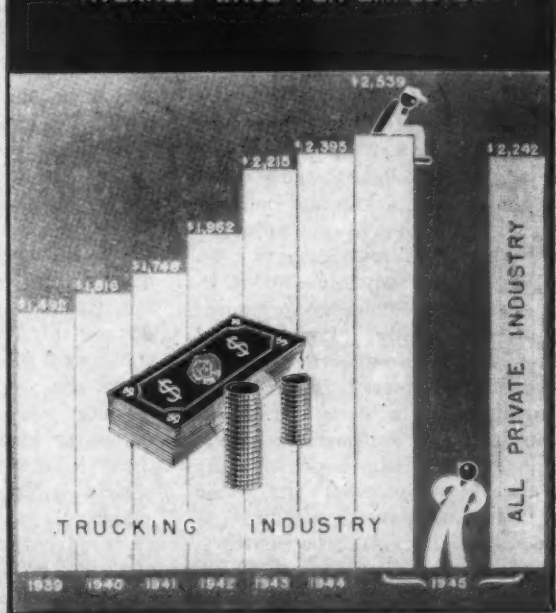
## FOR-HIRE TRUCKLOADINGS BY MONTHS

1937 through 1946

Based on monthly surveys by the Department of Research, American Trucking Associations, Inc. The monthly average for the three years 1938-1940 represents 100. The index figure shown for each month is an average for the nine years 1937 through 1946.



## AVERAGE WAGE PER EMPLOYEE





# An Airfreight MUST ... Efficient Ground Services

ONE of the most important factors which a traffic manager must consider, when deciding whether he should route a particular shipment by air, is the additional time which would be required for the ground pickup and delivery. Slow ground trucking service might absorb all the time he had hoped to save.

This situation is well understood today by sales agents for air cargo space, and they are definitely trying to do something about it. Alert truckers operating in cities with freighting airports realize the necessity of developing more speed in the ground pickup and delivery service essential to air shipping and these truckers also have been trying to do something about it. Likewise, the trucking organizations are vitally interested, and they have assured active cooperation in the improvement of motor trucking services to air shipping. For instance, the American Trucking Assns., Inc., have officially stated that they do not consider air shipping as competitive with highway trucking. On the contrary, they consider that the recent expansion in air cargo tonnage is affording truckers additional service

*The airlines recognize the need for more efficiency and more coordination in the ground transportation of airfreight . . . In this article Mr. Howard tells us what the airlines are doing to develop effective ground services.*

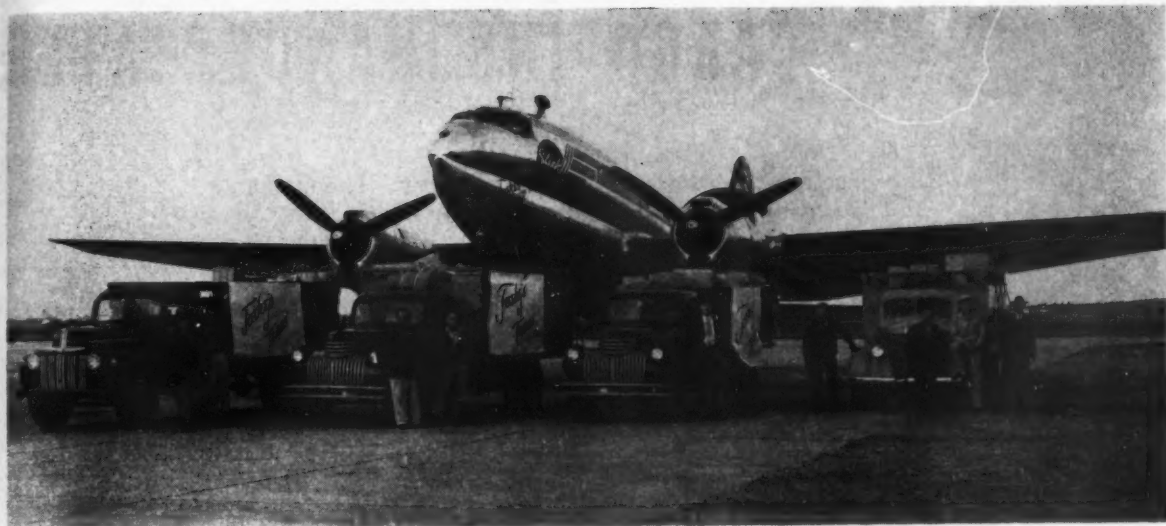
opportunities in the essential job of assembly and delivery of air shipments.

During the past two or three years some of the scheduled airlines, while still giving most of their attention to passenger transportation, have been planning ahead for expansion of their air freight services. This has included the recent addition of big cargo planes with freight capacity up to 8½ tons; and during this period they also have been systematically working up their ground services for trucking assembly and distribution of air freight. Also, during this recent period of two or three years, these comparatively few big airlines with scheduled freight cargo services have been supplemented by some hundreds of unscheduled "gypsy" cargo carrier planes. These planes started on their adventurous way soon after the ending of the war, stimulated by the fact that many trained pilots had been released from mili-

tary service, and by the fact that the government was offering bargains in planes that could be converted into air-freighters. Thus, these air freighters were ready for pickup anywhere that a cargo plane could be landed; and ready to deliver, at any other available landing field, any kind of paying air cargo.

Today, a comparatively few of these "unscheduled" cargo planes have been assembled into substantially financed, small air-cargo fleets. And some of these fleets are now being operated between the leading airports of the nation on regular "contract schedules," as contrasted with the officially "published schedules" of the big passenger airline fleets that also have freight cargo ships. In addition, all passenger airliners carry extra air express and air freight, as space will permit, sometimes up to 6,000 lb. or more.

In addition, the hundreds of unscheduled "gypsy" cargo car-



By **RANDALL R. HOWARD**  
Special Correspondent

rier planes are being operated on day-by-day schedules everywhere across the nation. They will go wherever air-freight opportunities exist or can be developed. They are also called "air forwarders," and some of the larger "scheduled" airliners admit that they are performing a valuable service in the education of shippers as to the value and utility of air transportation, and in stirring up and assembling "new business" which benefits the entire air cargo industry.

Of course, all of these several different classifications of air cargo services are dependent on, and in fact limited by the general speed and efficiency of the available ground trucking services which are essential for the pick-up and the delivery of their air shipments.

A survey of air shipping centered in Chicago at the Chicago Municipal Airport affords a good example of the ground pickup and delivery problems involved in air transportation, and the services needed for efficient air shipping. The Chicago airport is being served by the following groups of air-cargo carriers: 1. Nearly a



How American Airlines sell shippers on their pick-up and delivery services. Samples of recent air cargo publicity. The smaller piece is a 4-page folder which is distributed by local truckers when making calls.

dozen scheduled-service air lines. 2. About an equal number of unscheduled contract carriers, several of which recently have made official application to operate as scheduled carriers. 3. About 20 to 30 "gypsy" cargo carriers which may make Chicago pickups and deliveries during a period of a month, and which recently often has included three or four planes a day.

As stated, some of the largest of the scheduled airlines and unscheduled cargo lines have been

active during the past few years in the development of the supplementary ground trucking services needed for pickup and delivery of their air freight shipments. One example is United Air Lines, which has been developing ground trucking connections at the 70 different air ports at which they now have scheduled cargo service. To provide local pickup and delivery they have arrangements with about 60 trucking companies which have regular pickups and delivery.

(Continued on Page 56)

# CARGO INSURANCE RATES ARE

**Insurance rates are based on loss expectancy. The trucker who is paying more for his insurance than others in the industry must examine his loss record, and better it.**

**M**OTOR truck cargo operators are faced with increasing rates for cargo insurance. This is especially true of the large trucking operator whose cargo insurance rates are a percentage of his gross receipts. Commodity values have doubled, and insurance premiums must be increased to keep pace with losses, which must be paid for at current commodity prices.

The loss experience on motor truck cargo insurance was generally unsatisfactory for several years, even before the increase in commodity prices. This unsatisfactory loss experience and the higher commodity values have caused insurance companies to increase rates to levels which appear exorbitant to the average trucker. The trucker's distrust of insurance rates is not lessened by the fact that he may receive widely varying rate quotations from different insurance companies.

Insurance rates are based on loss expectancy. Insurance company underwriters have to anticipate their future losses on the basis of what has occurred in the past. This is a judgment process, and there is some difference of opinion among underwriters regarding the relative importance of the many factors which enter into the rate computation, accounting for the variation in rates which are quoted by different insurance companies.

On the average and over a period of years, the insurance companies use about one-half of their premiums for the payment of losses, and the other half is used for administration, taxes, agent's commissions, service to the policyholder, and loss prevention work. Thus an industry must expect to



By **WILLIAM H. RODDA**

*Secretary  
Transportation Insurance Rating  
Bureau*

pay out in insurance premiums approximately twice what is received in payment of losses. The problem of insurance rate reduction, therefore, is primarily one of loss reduction. For every dollar in losses saved, the trucking industry can anticipate saving two dollars in insurance premiums. A large truck operation may be rated partly on its own loss record, and for such truckers their experience will be reflected directly in their insurance rates.

The fire hazard of terminal locations is one of the important factors, and the rates bear a direct relationship to the fire insurance rate on the contents of the terminal building. The hazard can be reduced by the installation of automatic sprinkler equipment and fire extinguishers in terminals, and by the maintenance of excellent housekeeping conditions. It is also recommended that fire insurance protection on terminal contents be written in a separate policy from the over-the-road coverage. This is helpful in getting adequate coverage, because the inclusion of a high terminal liability in the road coverage makes the risk undesirable to the insurance company.

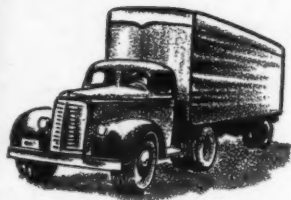
Fires in trucks on the road can be controlled almost entirely by

proper maintenance of the equipment, by proper installation and care of tires, and by having safety gasoline tanks and overturn switches on every unit. The importance of the safety gasoline tank can not be over-emphasized. A loss which occurred a few months ago in a Virginia city illustrates the sort of minor collision which can result in a total loss of cargo when fire ensues from a crushed gasoline tank. The tractor and semi-trailer were side-swiped by another automobile, and gasoline was sprayed over the entire side of the semi-trailer. Sparks from the collision set fire to the gasoline, and the load was a total loss in spite of efforts by the city fire department. It was our conclusion that a safety gasoline tank on the unit would have resisted crushing and the damage to the cargo would have been minor, instead of totaling more than \$20,000.

The overturn switch is also recommended in order that electrical current may be cut off automatically in case of collision or overturn of the unit. Substantial credits in the rates are given by most insurance companies for the installation of these devices.

Hijacking of valuable merchandise is another source of large loss. There are two methods which have proved effective in controlling hijacking. The first is the use of automatic alarms on all units which carry loads exceeding \$5,000 in value, or which carry loads of any type attractive to hijackers and which can be disposed of conveniently. The second expedient is the splitting of high value loads between two or more trucks. Experience indicates that hijackers try to pick out full loads of a





single type of merchandise. In many cases it is believed that the hijackers will accept "orders" for a certain type of merchandise and then will go out to hijack a load of that particular commodity. There are numerous indications that hijackers do not like to bother with mixed merchandise. Pin locks on the fifth wheel help to prevent hijackers from driving off with semi-trailers which must be parked while loaded.

Another type of theft loss which takes a heavy toll is the theft of individual cartons from trucks and from loading docks. Such thefts are possible when the truckers do not maintain adequate checking systems. The checking should be so complete that the exact route of a package could be determined from the time it is picked up until it is delivered to the consignee. Where such a system is in operation, the point of loss can be determined quickly and measures taken to prevent a repetition. Adequate checking requires intelligent personnel, but it is not so expensive as paying the insurance premiums necessary to compensate for losses resulting from an inadequate system.

Another source of loss is a loading platform which is open to the public or to hangers-on. All platforms should be restricted so that no person or truck can approach them without being under observation at all times. Most loading docks can be rearranged to provide adequate observation with great expense.

The use of hired units is a loss-producing factor because the trucker is not able to maintain control over drivers or trucks which he hires from an outside

(Continued on Page 87)

## LIABILITY INSURANCE QUIZ

Q. What department writes this coverage? A. The inland marine department.

Q. How is it written? A. As a separate policy.

### Coverage

Q. What does this policy cover? A. This insurance covers the assured's liability under bills of lading or shipping receipts issued by the assured, caused by the named perils to goods and merchandise while in the custody of the assured for and during transportation by motor truck or trucks owned and operated by the assured.

Q. What perils are insured against? A. The liability of the assured is covered for direct loss or damage caused by:

1. Fire and explosion.
2. Accidental collision with another vehicle or object, but excluding contact with the roadbed, curbing rails or ties, steam or other railroad, or with any stationary object while backing for loading or unloading, etc.
3. Overturning of the vehicle.
4. Collapse of bridges or culverts.
5. Stranding, sinking, burning or collision of any regular ferry, including general average or salvage charges.
6. Theft, but not including pilferage.

The policy contains a 100 per cent coinsurance clause applicable to each truck. The policy is issued for one year, except for a policy written on a gross receipts basis, which is deemed continuous until cancelled by either the assured or company.

The Interstate Commerce Commission requires all interstate carriers to maintain cargo insurance of \$1000 per vehicle and \$2000 in any one catastrophe involving more than one vehicle. A standard endorsement is mandatory, providing that the insuring company is liable as the truckman is liable under bills of lading. It also provides that the truckman will reimburse the company for any such losses paid with the exception, of course, of claims properly covered under the basic policy conditions.

### Exclusions

Q. What are the exclusions? A. The policy does not insure:

- (a) Accounts, bills, currency, deeds, evidences of debts, monies, notes securities, jewelry or other similar valuables;
- (b) loss or damage due to loss of market, or deterioration caused by delay or breakdown of refrigerating machinery, even if such delay and breakdown be caused by a peril insured against;
- (c) loss or damage to property while in or on the premises of the assured or in any garage or building where vehicles described are usually kept;
- (d) loss or damage caused by neglect of assured to use all reasonable means to save or preserve property at or after any disaster insured against;
- (e) loss or damage resulting from strikes, lock-outs, labor disturbances, riots, civil commotion, capture or war, etc.;
- (f) loss or damage caused by any heating apparatus or equipment installed in the cargo compartment of the vehicle.

Other exclusions are: loss or damage to livestock, except against accident causing death or injury rendering destruction necessary in consequence of any of the perils insured against; loss or damage to eggs, poultry or produce, except where amounting to 50 per cent of value of each shipping package and in any event no loss in excess of \$250; loss or damage to paintings, statuary, or other art objects unless absolute total, but not to exceed actual cash value nor in any event for more than \$250.

### Rates

Q. What are the approximate rates? A. Risks are individually rated. The factors considered are past experience, type and number of trucks, goods hauled, radius of operation, limits of liability, financial condition, alarm system, number of men on trucks, etc.

Q. What is the approximate commission? A. For brokers 15 per cent; for local agents 15 per cent.

Q. Are the forms standard? A. For the most part companies' basic forms are, but extensions may vary somewhat.—THE SPECTATOR.

# ELECTRIC HANDLING

## Cuts Unloading Time

*Electric system in truck cuts unloading time from 3 hours to 30 minutes.*

By WILLIAM CRAIGIE

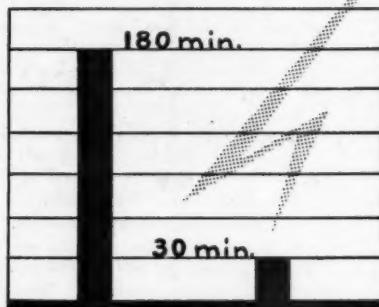
A new electrical method of unloading trucks in one-sixth the time ordinarily consumed when done manually has been developed and is being used by the Pride Transportation Co.

George H. Pride has been in trucking for many years, and at present his firm carries approximately 300 tons a day in 21 trucks within a radius of 75 miles of New York City. He uses trailer trucks almost exclusively, and is said to have been the first to use trailers for making deliveries in New York. The Pride Transportation Co. handles work for steamship lines, docks, and many firms such as Western Electric and Loose-Wiles Biscuit Co.

When Mr. Pride began work on his electrically-operated unloading system, his men were unloading his trucks at the rate of 15 tons in 3 hours. He had as his goal the unloading of a 15-ton load in one-half hour. The power for his conveyor system is derived from a 10 KW, 125 volt direct current. Pride drivers connect a cord from the unloading system to the auxiliary takeoff (a large red warning light burns while the auxiliary is generating) and are ready for the unloading.

The control panel is at the right rear of the trailer, and the driver first positions the elevating tailgate. This is no ordinary tailgate, for it is 6 ft. in length and of the trailer width. It moves 12 ft. per minute, and can carry 5 tons of weight. Heavy duty chains run three-quarters of the way out to the end and take the strain.

The tailgate is locked into position when the truck is loaded and in motion. When unloading, pins are drawn, and wire cables let it



move gently into unloading position until the chains take the weight. Then the cables are unhooked and put out of the way.

Inside the trailer are four rows of rollers (forming a roller skate type of conveyor) running the floor length. Resting on top of these rollers are 5 steel plates, 5 ft. long by  $\frac{1}{4}$  in. thick and of the same width as the trailer interior. On the edges of these plates are welded angle irons, which are adjacent to and parallel with the trailer walls. In each of these angle irons are two holes, one fore and the other aft. These holes play an important part in the unloading operation which is to be described presently. The freight to be unloaded is positioned on top of these plates which are locked in place by means of "toppers" to prevent load shifting when the trailer is in motion.

In unloading, the "stopper" associated with the plate nearest the rear trailer wall is removed. Two 3 ft. by 5 ft. skids are placed on the tailgate which has been provided with small "I-beams" to prevent their shifting. The gate is positioned so that the skids are just below the level of the steel plate in the trailer on which the shipment to be removed rests.

This tailgate can be adjusted to within  $\frac{1}{16}$  in.

Sheaves are now locked into place on both ends of the tailgate and short wire ropes are locked into the holes in the rear of the angle irons associated with the steel plate to be unloaded. Then by means of a cable system leading through the sheaves to a winding drum underneath the trailer body, the metal plate, carrying up to three tons of cargo, is drawn out along the rollers and on to the two skids. The cargo on each plate has been split down the center so that it naturally divides into two sections, one on each skid. Early trouble caused by nailheads on the skids scarring the metal plates has been solved by placing a length of steel strapping along the nailheads.

To remove the steel plate from the load and allow the receiver to take away his cargo, a barrier plate just below the floor of the trailer is electrically raised along an angle slot, so that at its top position it projects about 1 in. beyond the tail of the truck. It is about five in. high, runs the width of the truck, and is in place just above the steel plate, which must now be removed from the skid load and run back into the trailer. When the barrier is raised into position, the two gear bars used to raise it are lowered after locking it into place with two pins in the angle slots. Then the cable system pulls the plate back into the trailer. The barrier contacts the cargo just above the plate and holds it in place on the skids.

The tailgate is positioned to the receiver's platform, and the skids

(Continued on Page 72)

# Motor Carrier Rates

**Motor truck operators have copied the rail tariffs and classifications with the result that truck tariffs are "confusion confounded"... A new rate code based on operations and costs must be formulated if the industry is to prosper.**



**A**N EASY WAY to stir up discussion when a group of industrial traffic managers get together is to begin talking about motor carrier rates. The discussion usually centers on the following: 1. Present-day confusion in motor carrier rates as related especially to point-to-point tariffs of competing highway carriers. 2. Structural basis and justification of many rates as pertaining to actual motor transportation costs. 3. Service responsibility of the motor trucking industry as a whole. 4. Possible practical changes in rates that might afford needed relief to shippers. 5. Chances, if any, that may be in sight for basic improvements in the trucking tariff structure.

Because the commodities handled by the United States Gypsum Co. are distributed from numer-

By **RUSSELL A. MORIN**

*Assistant General Traffic Manager  
United States Gypsum Co.*

ous mills throughout the nation, the company has been largely using car lot rail shipping. When motor transportation is used it is almost wholly in truckload lots. However, company operations are closely associated with those of other large users of motor trucking, hence we come in close contact with motor rate problems.

The present confusion in motor rates was recently summarized by the traffic manager of a large manufacturing company which uses services of about 200 different truckers. "Present trucking rates," said he, "are so confusing that most truckers don't know themselves what their rates are. Call up five truck lines about

a rate between two specific points and most likely not a single one of the five will be able to give you the exact rate, particularly if one of these points is off-line. And the chances are that three of the five will later correct any tentative rates that may be given."

Another aspect of the rate situation is usually brought to light when shippers attend a public hearing by a motor freight tariff bureau. At a recent Chicago hearing, one traffic manager was given newspaper publicity when he charged that "present trucking rates are chaotic, because patterned too much on rail operations and not based on actual motor truck costs and operating facilities."

Traffic managers of course realize the present serious economic conditions under which the trucking industry must operate.



That is, most motor carriers are still hampered by inability to get needed new equipment, and there are still scarcities in some maintenance parts. Also, the large percentage of older equipment that most truckers still must use is resulting in higher-than-ordinary operating costs. In addition, truck operators have higher labor costs than ever before, and many are experiencing difficulty in getting efficient drivers, platform help, shop mechanics and office help.

The railroads also have high operating costs, and it is unfortunate for both shippers and operators that the present difficult economic conditions exist at a time when industrial traffic managers also are having their troubles and when most of them are in need of a more elastic type of transportation service. Such a service is needed to make possible prompt distribution of small-volume deliveries to retail dealers, most of whom became cautious buyers because of uncertain consumer demands. Thus the average traffic manager must be very careful in the selection of his day-by-day shipping needs. He is obliged to shop about among all possible forms of transportation.

These conditions, together with recent changes in the rate levels of all types of transportation, partially explains the shifting transportation trends by many shippers. For instance, some companies recently have much increased their percentage of shipping by company-owned trucks as compared with for-hire motor trucking.

One encouraging indication of a possible change in the national truck rate picture has recently appeared. There is increasing hope that truck rates some day may be based on actual operating costs, rather than on present rail rate structure and classification. This hope is being stimulated by unofficial reports to the effect that one or more of the larger motor truck tariff publishing bureaus have started programs to revise their entire tariff structure, to base it on actual operating costs. Such a revision program of course would represent a vast undertaking.

The desirability of such a basic change in the truck rate structure has long been suggested by traffic managers. It was evident, however, that such a change was not feasible until the trucking industry had not only developed operating data based on experience but also a scientific accounting system.

It is the writer's belief that any ultimate rate scale that may finally resolve from such a revision should be adhered to by the motor carriers even if it should result in some instances of higher rates for some lengths of haul than those of existing competition. This is the only way that different forms of transportation can find their proper sphere. If diagnosis of a situation justifies a rate of 30c. to cover actual costs plus a reasonable profit, then the publishing of a rate of 28c. to meet existing competition is unsound. To offset such a loss, it becomes necessary to increase other rates to take up the slack; or, on the other hand, to go broke. Rates so juggled eventually become (as they have become today) hopelessly unscientific and unable to meet conditions. This has resulted in the present-day balance-sheet trials and tribulations of the motor carriers.

There are especially timely reasons why such a program for the development of scientific motor carrier rates is now desirable. One factor relates to the petition recently filed by the railroads with the Interstate Commerce Comm., with which most traffic men are familiar. The rails have asked permission to increase their less-carload rates by percentages which range from 10 percent up to 110 percent. This petition is supported by the now well-publicized contention that rail terminal handling costs represent from 60 to 80 percent of rail l.e.l. costs.

In reference to a possible change in rail rates, there are two points which shipper traffic departments rightfully should consider. First, are these proposed changes in rail rates justified on the basis of rail operating costs? Second, what will the truckers do, if and when the petitioned rail advance is allowed?

If this rail petition should be

granted, in whole or in part, it is to be hoped that the motor carrier industry will not follow with arbitrary increases in their class rate structure, without proof that such increases fit motor carrier transportation and are justified by actual operating costs. Arbitrarily to increase motor rates simply because rail competition had increased rates would be an unrealistic approach to a vexing problem and it would only serve to continue a program long since proved as not fitting the situation. As stated, if one form of transportation cannot profitably carry certain traffic, based upon its own costs as related to its peculiar type of service, then that form of transportation should forego the traffic to another kind of carrier service better suited to transport it, based upon its costs and related rate structure. This transfer would be for the good of the carrier giving up the service, the economic stability of that form of transportation, the general public good, and in the interest of industrial common sense.

Closely related to this desired basic change in motor carrier rates is the need for simplification of truck tariffs. Present tariff complexities date back to the early history of the trucking industry, when the motor carriers largely copied the rail tariffs and in general adopted the rail classifications and class rate structure. But today the motor tariffs have become so complicated and confused that they may be fairly described as "confusion confounded." This is because the motor tariffs permit so many rate and rule exceptions, "freezing of rates," and "flag outs" of different type and measure. And such changes may be made by any one or more of the 300 to 500 different individual truckers that may be designated in some tariffs. Every shipper traffic department is familiar with this "confusion confounded," when they must select a motor carrier to route a definite shipment, taking into consideration all of the possible "flag out" exceptions, etc.

It is the opinion of the writer

(Continued on Page 72)



# CARGO SHIPS OF THE AIR

*Is the airship economically feasible for commercial operation? . . . Dr. Frederick discusses some of the information recently made available on the subject by the Air Coordinating Committee.*

By JOHN H. FREDERICK

*Air Cargo Consultant*

**I**S THE airship economically feasible for commercial operations? This is a question frequently asked and which many attempts have been made to answer. No very good answer is yet available, but a recent report by the Air Coordinating Committee presents some information on the subject, much more than has heretofore been made public. The committee is, however, careful to point out that no experience exists from which costs can be derived and that the traveling and shipping public have never really had a chance to choose between the conventional airplane service and that which the airship can presumably offer, at rates which are competitive with both the surface vessel and the plane.

The airship is definitely a middle-speed vehicle. Using conventional design, it is predicted that

the large rigid airships will cruise at approximately 80 m.p.h. with various possible improvements in design increasing this speed to a possible 150 m.p.h. This moderate speed of the airship, as compared to the 300 m.p.h. airplane, offers both advantages and disadvantages. The proponents of the airship assert that the moderate speed will attract the patronage of those travelers who want a fast service but who are not interested in super-speeds and who appreciate the more commodious accommodations offered by the airship. The disadvantage of the airship's moderate speed, aside from making it undesirable for those who require the fastest service, is essentially a cost disadvantage, the limitation which the lower speed places on the ton-miles of service performed during a year in relation to a very



large investment in each airship. The large capacity of the airship in comparison with even the largest projected planes is, however, one of its most impressive characteristics particularly from a cargo standpoint.

A ten million cu. ft. airship has a pay load capacity of 180 thousand lb. for 2500-mi. operations and 155 thousand lb. for 3500-mi. operations. (San Francisco to Hawaiian Islands—2500 mi.; New York to London—3500 mi.). The large cubic capacity of the airship and its accessibility for loading permit the carriage of large and bulky shipments which could only be handled with great difficulty by an airplane, if at all. The possible lower costs create a probability that the airship, if operating on frequent and regular schedules, will be able to develop substantial cargo movements. As an all-cargo carrier, however, the large capacity of the airship may have the disadvantage that it may be impossible to maintain commercially adequate load factors.

While no quantitative estimate of airship cargo potentials has been made it is safe to say that the airship will probably carry little cargo requiring the fastest service. If schedules are infrequent, the airship will have little or no advantage over fast and frequent steamer service on the shorter international routes. However, it is reasonable to expect that many items that cannot afford the higher rates of the airplane would benefit from air transportation and find that airship service could supply their needs.

The airplane will eventually become the standard carrier of first-class mail on all long-distance routes. The airship, with its slower speeds, will not compete with the plane as a carrier of first-class mail where the services are parallel. However, the larger capacity and lower costs of the airship create an opportunity for the movement of second and third-class mail and parcel post by air at rates only somewhat higher than present rates for steamer mail.

The airship appears to be best suited for long-distance operations in excess of 2500 mi. preferably at low altitudes. It is a vehicle of transportation ideally suited to over-water operations and because of its very large pay load this type of aircraft can operate economically only where there is a relatively large market for its services. This means that there are relatively few routes particularly adapted to the airship. However, because of its relatively low cruising speed the airship can operate over very long ranges with regularity, navigating around storms and selecting its routes to take advantage of favorable wind conditions. Also, since most parts of an airship are accessible for servicing in flight, as engines are operated at moderate power, and as all of the engines need not be operated continuously, it is possible for an airship to remain in virtually continuous operation during the seasons of heavy travel and shipping, with overhaul and maintenance work concentrated in off-peak weeks or months.

The only airship operation we have so far had was that of the German Graf Zeppelin and Hindenburg. These airships had no plane competition over the routes they followed. In the future, however, no airship operation will serve a route alone, all will be operating between points also served by airlines. But the transportation market must never be viewed as static. The market for transportation services is one of the most elastic in our economy, the volume of travel and shipping being sensitively responsive to reductions in costs, to savings in time, and to improvements in comfort and convenience. Although it will draw some traffic from both the airplane and the steamship, the airship is primarily a vehicle which fills the gap between these two forms of transportation. If it achieves low costs, it will develop a new stratum in the transportation market.

The longer the over-water route, the greater the advantage of the airship as compared to the longer time required by the steamship and the higher costs of the airplane. Thus, the 8000-mi. operation from New York to South Africa would appear to be ideally suited to airship service. However, the traffic potential between the United States and South Africa is so limited as to make it uneconomical to project airship operations for this route in the immediate future. On north-south operations, however, the airship avoids the prevailing headwinds which are encountered in west-bound operations in the temperate zones and the increasingly close commercial and cultural relations with Latin America and the growing volume of traffic with the countries to the south of us indicates a possibility of airship operations on low-altitude courses to the chief east-coast cities of South America from both the east and west coasts of the United States. The long-distance trans-Pacific routes from the west coast to Asia and the over-water operations to the Hawaiian Islands and beyond to Asia and Australasia offer ideal

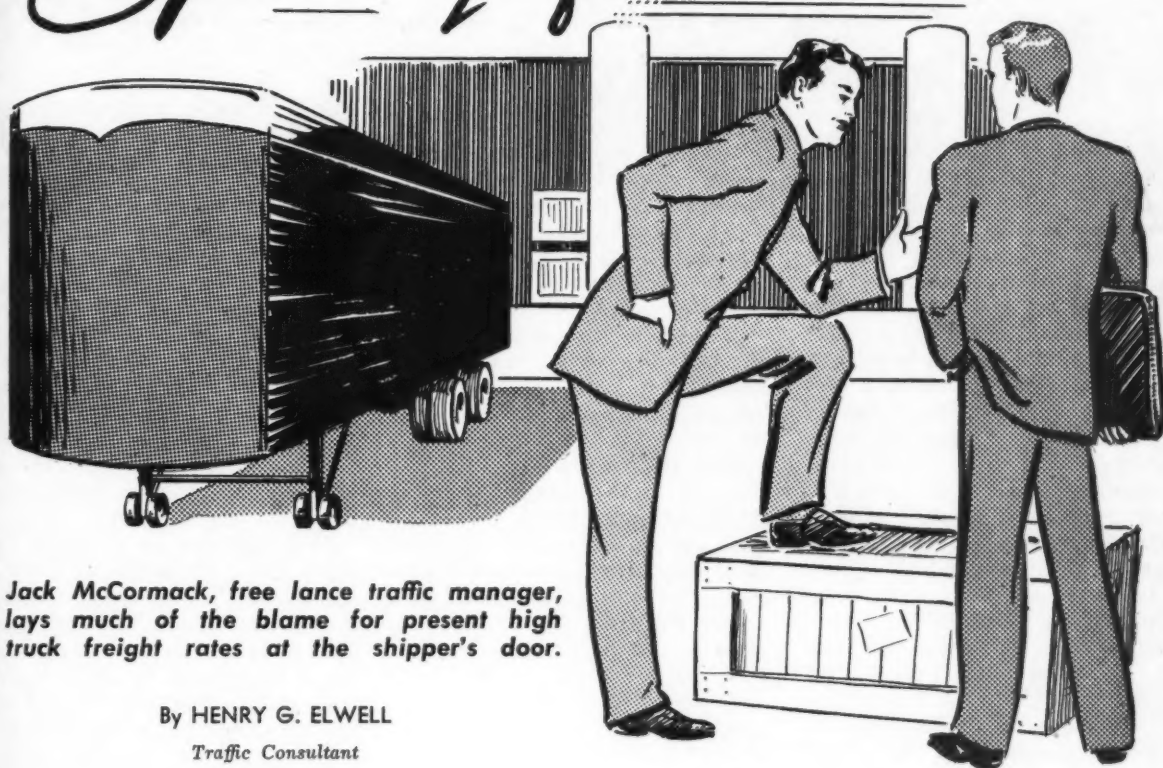
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Table I  
Estimated Cost of Cargo Operations Per Airship Per Year

	2500-Mile Operation		3500-Mile Operation	
	Amount	Per cent of total	Amount	Per cent of total
Operating Costs .....	\$867,585	26.0	\$739,969	23.1
Fixed Charges .....	1,789,010	53.9	1,789,010	55.8
8% Profit on Investment .....	675,600	20.1	675,600	21.1
	<b>\$3,332,195</b>	<b>100.0</b>	<b>\$3,204,579</b>	<b>100.0</b>



# Speaking of Rates...



**Jack McCormack, free lance traffic manager, lays much of the blame for present high truck freight rates at the shipper's door.**

By HENRY G. ELWELL

*Traffic Consultant*

**O**PERATING costs of motor truck carriers are heavier where shippers tolerate inefficiency in their own traffic and shipping practices."

The assertion was made by Joseph Morton, traffic manager, Kempton Trucking Corp. He was speaking to Richard Newman, vice president of the Crown Mfg. Co., and Jack McCormack, free lance traffic manager. The three men were seated in the lobby of the Penton Hotel where they had gathered at the close of the monthly meeting of the local traffic club.

"To be more specific," continued Morton, "slipshod shipping methods, inadequate materials handling equipment, poorly trained shipping department personnel, and lack of capable traffic management in a manufacturing concern

add to the operating costs of the trucking outfit which hauls its products. When a truckman's operating costs rise, the freight rates eventually must be increased, or the trucking services will have to be curtailed or discontinued."

"In your opinion, Joe, who is to blame for inefficiency of the sort you describe?" asked McCormack. "Is it the shipping department, the traffic department, or top management?"

"It is seldom the direct fault of the shipping department, Jack. Sometimes, and not as infrequently as you might think, it is because inexperienced persons are placed in charge of the industry's traffic department. Fundamentally, though, top management is responsible. Too frequently the officers of a company give little or no attention to the traffic and shipping needs of their organization."

Newman, who had sat in silence

as he smoked a cigar, now spoke up. "Joe, what are you trying to do, take me for a ride? What's all this talk about top management in industry being entirely responsible for the level of truck freight rates?"

"Wait a minute, Dick, I didn't say top management in industry is wholly answerable on that score," countered Morton. "I do contend, however, that the officials are accountable for wrong shipping methods and poor control of traffic functions whenever they exist in any company. Take your own establishment. Who hired your shipping clerk and your traffic manager?"

"I did, in both cases," replied Newman.

"Then," interjected McCormack, "if those two departments of your company operate in an

*(Continued on Page 84)*

Author's Note: Names of persons, companies, and places are fictitious.

# MECHANICAL HANDLING EXTRAS

*The many incidental, but important, advantages accruing from the use of a lift truck system are often overlooked by management.*

**A**LTHOUGH the lift truck system is considered primarily as a load moving system, nevertheless, it has many other advantages which too often are overlooked when comparing it with other methods. A lift truck system saves handling of units in process. A full load may be brought to a machine for processing, then in place of putting the finished parts on the floor they are placed on an empty platform, which means that when all the parts are completed this loaded platform can be removed without extra handling.

A lower capital investment is required for an adequate system using lift trucks and platforms than for handling systems. One lift truck can serve 50 to 100 or more platforms. Platforms are relatively inexpensive. Since only one mechanical device is required for moving the platforms, it pays to have the most efficient type of wheels and bearings.

Good housekeeping is another important adjunct of the lift truck system, due to the fact that the skid platforms are immovable without the lift truck. It follows that operators will place them

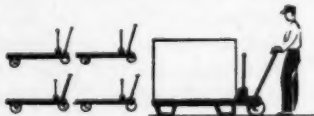
where they belong and they then cannot be moved until there is a definite reason for doing so. The orderliness of a plant using the lift truck system is easily appreciated when it is compared with a plant using ordinary floor trucks. The floor trucks are pushed here and there without regard for alignment and necessity of piles.

The lift truck system often is effective in reducing insurance costs. Insurance companies recognize the value of platform storage. Flood, fire and other damage can be avoided because the platforms are easily moved out of danger. When certain materials are placed directly on the floor they absorb water throughout the entire pile by capillary action. A fraction of an inch of water on the floor can create untold damage. When this same material is placed upon skid platforms it requires a large volume of water to create this damage. Before this amount of water can accumulate the loads can be removed from danger. It is also a fact that the lift truck system can readily be utilized as a floor saving arrangement through

tying loaded skids one on top of the other or in racks. Small plants can start in with a hand truck system and later be converted to power operation without any changes other than the addition of power-operating lift trucks or tying machines. A power-operated machine should always be equipped with rubber-tired wheels as large as possible because of the heavy load they must carry in conveying machine itself plus the addition of the loads.

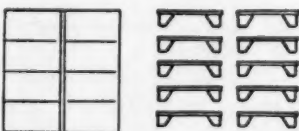
Skid platforms are adaptable to either hand lift trucks or power lift trucks. This is a very important feature of the lift truck system as it enables the hand lift trucks to be used for short hauls and maneuvering and the power units for long hauls. It provides insurance for growth. A plant starts out using hand lift trucks and skid platforms and when the time occurs that power is necessary no further changes are required for the system other than the addition of power units.

There are certain incidental advantages to the use of the lift truck system. For example goods may be transferred to lift truck



## HOW MANY TRUCKS?

Sufficient trucks should be available so that all loads required may be moved simultaneously when necessary. Thereby, manpower will be most effectively employed. The greater speed thus effected will more than make up for the cost of the trucks.



## HOW MANY PLATFORMS?

Consider your total net storage area for materials in process or storage. The total area of platforms required should at least equal this net area. Remember scarcity of platforms cuts down efficiency.

By NATHANIEL WARSHAW

Manager, Materials Handling Division  
Market Forge Co.

platforms from vehicles or freight cars, saving re-handling. Empty platforms are kept handy to the unloading point in a minimum amount of space by stacking them one on top of the other. When tons of material are delivered it is very important to save this extra handling as there is no more work involved in removing the materials from the truck or freight car and placing them on the platform than there would be in placing them on the floor. Frequently, too, the skid platform can be taken right into the motor truck or the freight car and loaded and then removed. Where perishable goods are involved, particularly those types which are prey to rodents, it is possible to save valuable materials. The use of the platform helps eliminate the rodent menace and makes possible their ready destruction. Ability to store materials selectively is a great asset and is a particular advantage of the lift truck system.

The assembly of a large machine can be started on a lift truck platform and then be moved from point to point as additional parts are added until finally the unit arrives in the shipping room. The shipping of a completed unit on a skid platform simplifies handling at destination and in transit. Frequently the skid platform can be entirely eliminated if the machine designer will arrange the base of the machine so that it forms a natural support for a lift truck.

Some people associate the use of lift trucks only with heavy loads. This, however, is a misunderstanding. The lift truck system proves equally economical whether the load is light or heavy. Unlike many handling systems which depend upon structural changes and additions to the building, the lift truck system operates

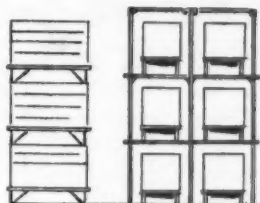
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## HANDLING EFFICIENCY PLUS

**A**LTHOUGH the lift truck system is considered primarily a handling system, it has many incidental advantages which should not be overlooked.

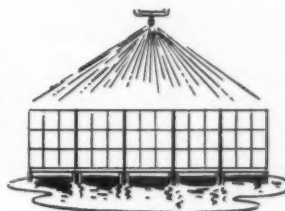
### Saving in Floor Space

Loaded platforms may be stacked one on the other, in racks or on mezzanine floors. This saves floor space and permits use of overhead space. Quick stacking devices are available.



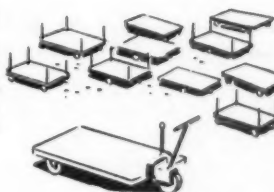
### Damage Prevention

Insurance companies recognize the value of platform storage. Flood, fire and other damage can be avoided because platforms are easily removable. Water absorption from floor is avoided.



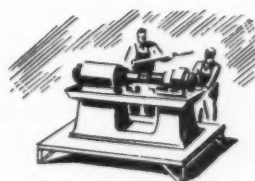
### Saving in Maintenance

The only mechanical device in the lift truck system is the lift truck itself. With plain, non-mechanical platforms replacing the trucks otherwise needed, maintenance costs are greatly reduced.



### Assembly Savings

The use of platforms for the assembly of machinery and equipment is proving very effective. Assembly is effected by moving platform from assembly station to assembly station.

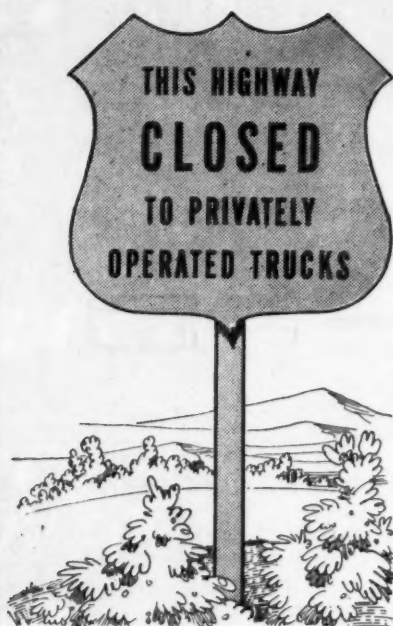


### Saving in Inter-Plant Handling

Platforms may be readily transferred from one plant to another by motor trucks. The four platform legs have been found very effective in preventing shifting of load.







# WHOSE HIGHWAYS ARE THEY?

*"The for-hire carriers, because of their obligations of service, are entitled to protection from exploitation by unprincipled shippers," says Mr. Elkins. "But this protection should not be extended to the point where the public is denied the service performed by trucks owned by manufacturers."*

By HARRY S. ELKINS

*Interstate Commerce Attorney*

**T**HERE are occupations in which persons may not engage unless they have authority from the federal government. Interstate transportation as a motor carrier for hire is one of them. Authorization gives the carrier the use of the highways for business purposes and places upon it the duty of supplying service to the public. Persons who are apparently using the highways for commercial purposes without such authority are regarded as suspects by those possessing it. Shippers using their own trucks and making a profit from such use should be denied the use of highways in the opinion of associations of certified operators. Such operators are now attempting to obtain from the Interstate Commerce Comm. a ruling which will drive from the highways shippers who are making a profit from the use of their trucks and who are operating as for-hire carriers as measured by a definition which the carrier organizations propose.

These organizations do not propose any changes in the statutory definitions. They say that the commission has incorrectly interpreted the definitions of common, contract and private motor carriers contained in the Interstate Commerce Act, that the ruling for which they contend is already in the act and,

correctly interpreted, it now prohibits the making of a profit from the use of private trucks on highways. They ask the Interstate Commerce Comm. to admit that its rulings in defining the classes of carriers have been in error, to reverse them, and to adopt the rule that if the trucks of shippers earn more than the cost of operation, they are employed in for-hire operations. Some operations are not subject to regulation by the commission and would not be affected by the change: operations for example wholly within a single state, and movements within cities or commercial areas. The carrier organizations appear to concede that shipper's trucks should be permitted to haul raw materials into their plants or in intraplant service, where the owner is both shipper and consignee. But other services without certificate or permit would be denied if more than the cost of the service is charged.

The position of the motor carrier organizations is not difficult to understand. They represent an industry which is not in good health. The tonnage transported over the road in private trucks is considerable. If all, or a substantial part of it, is transferred to for-hire carriers, the revenue from it would be considerable. Increases in freight rates are being sought. In many

instances the potential or actual ability of the shipper to employ his own trucks in competition with the for-hire carrier discourages the making of increases. A shipper's threat that he will use his own trucks if rates are increased, or the knowledge that he has the ability to do the work, tends to hold rates stationary. If this restraint or downward pull could be eliminated, the carriers would have greater freedom in the making of rate increases. The carriers sometimes assert that shippers use their trucks where conditions are most favorable or in services which would be most profitable to the for-hire carriers if performed by them; that the shippers skim the cream and leave the milk for the carriers. Because they use the highways for commercial use, the for-hire carriers are required to have certificates or permits which are sometimes difficult and expensive to obtain. Regulation, they contend, is onerous. Their activities are bounded by prescribed limitations, and they must be thoroughly acquainted with them and with numerous regulations affecting every part of their operations, such as accounting, rates, hours of drivers, maintenance of equipment, etc. Their records and all phases of their operations at any moment may be opened for inspection.

tion by an investigator from the commission. All these limitations, duties, and obligations were imposed upon them in the public interest—as a means to adequate and efficient transportation. Such service cannot be provided and maintained by them, they say, if, through loose or careless administration, other and unregulated carriers are permitted to trespass upon the field of regulated traffic and to haul tonnage which should be moved by for-hire carriers. Thus, by redefinition and a plugging of what they believe to be holes in the interpretations of the act by the commission, the for-hire carriers hope to restrict some uses of private trucks and to capture the tonnage now being transported unlawfully, they believe, by unauthorized carriers.

These contentions are not new. But they have been brought to a head and used forcefully in a case where the commission may give them effect by agreeing with them through a reinterpretation of the definitions in the act.

An application for operating rights filed by the Lenoir Chair Co. supplied the field of battle. Doubtless, the company is amazed at the furore which followed the filing, as it has reason to be, for the facts stated in its application were not distinctly different from those filed in other applications which had proceeded to decision without causing more than routine interest. Being in doubt of its status, the company asked for authority to operate interstate as a contract carrier. It believed itself to be a private carrier, but to be certain, it asked the commission to determine the character of the operations described in its application, and to deny it if the operation of its trucks was private transportation. This procedure is not unusual—many shippers as a precautionary measure have done likewise. When the case was opened for hearing by an examiner, national motor carrier organizations intervened and endeavored to develop facts to show that the company's operations were those of a for-hire carrier. The examiner did not agree, with those contentions and he wrote a report in which he recommended a

finding that the business of the applicant was that of a furniture manufacturer and distributor, and that the transportation of its property in its own trucks was merely incidental to its primary business—a conclusion which followed many precedents. But the motor carrier organizations disagreed and filed exceptions to the examiner's report and recommendations. The National Council of Private Motor Truck Owners, Inc. and the Private Carrier Conference of the American Trucking Assns., representing private shippers, then intervened in support of the company. The carrier organizations urged the commission to find that if the trucks of the company earned more than the costs of their operation, the company operated as a for-hire carrier. The shippers' organizations to the contrary said that the company was hauling its own property in its own trucks, and the service was merely incidental to its primary business—the manufacture and sale of furniture, that cost of such service is only one item to be considered in reaching a conclusion as to whether the business of the applicant was that of a furniture maker or of a transporter for-hire. If the commission should adopt the findings urged upon it by the carriers and apply the rule requested, it may exclude from the highways many vehicles now operating upon them, and the name of the Lenoir Chair Co. may become a noun descriptive of a new rule in transportation law. Greatness—or notoriety—depending upon the viewpoint, may be thrust upon it.

The company, with its own trucks, hauled only about 10 or 15 percent of the tonnage to its customers; railroads and for-hire carriers transported the rest. It used its trucks to points to which no motor carriers had authority to operate and to other points where customers required earlier delivery than could be supplied by the for-hire carriers. Its trucking operations, it said, had been performed at a loss; an assertion which the carrier organizations say was not definitely proved. It even offered to sell its vehicles if the buyers

would agree to secure operating rights to perform the service, but a lack of buyers required it to continue the transportation.

To determine whether a shipper is actually engaged in distribution of its products or is in transportation for hire is not always easy to determine. Shippers have applied to the commission for authority to operate as a carrier, as did the Lenoir Chair Co., hoping not to receive it, and have been informed that they were not carriers for hire, and some have been required to cease operations until authority was secured. The commission has asked the courts to enjoin shippers from using their trucks in some services. The decisions are not uniform. Thus, we have decisions of the commission and of the courts interpreting the definitions of common, contract and private carriers as contained in the Interstate Commerce Act.<sup>1</sup> From the cases only one principle may safely be drawn—that each situation is dependent upon its own facts. There is no rule of thumb.

The line of demarcation between a private carrier on the one hand and a common or contract carrier on the other is sometimes confused, and it is difficult for the shipper or his attorney to determine with any assurance of accuracy whether he is or is not a private carrier. Such a condition invites the carrier organizations to secure a

<sup>1</sup>Section 203(a) defines common, contract, and private carriers, as follows:

(14) The term 'common carrier by motor vehicle' means any person which holds itself out to the general public to engage in the transportation by motor vehicle in interstate or foreign commerce of passengers or property or any class or classes thereof for compensation, whether over regular or irregular routes, except transportation by motor vehicle by an express company to the extent that such transportation has heretofore been subject to part I, to which extent such transportation shall continue to be considered to be and shall be regulated as transportation subject to Part I.

(15) The term 'contract carrier by motor vehicle' means any person which under individual contracts or agreements, engaged in the transportation (other than transportation referred to in paragraph (14) and the exception therein) by motor vehicle of passengers or property in interstate or foreign commerce for compensation.

(17) The term 'private carrier of property by motor vehicle' means any person not included in the terms 'common carrier by motor vehicle' or 'contract carrier by motor vehicle' who or which transports in interstate or foreign commerce by motor vehicle property of which such person is the owner, lessee, or bailee, when such transportation is for the purpose of sale, lease, rent, or bailment, or in furtherance of any commercial enterprise.

(Continued on Page 60)

# The Airlines and REA



**T**HE position of the airlines with respect to the Railway Express Agency, as revealed by Fred M. Glass, president, Air Cargo, Inc., the airlines' ground service organization, at a recent hearing of the Civil Aeronautics Board, may be summarized as follows: The airlines feel they can no longer allow the development of a very substantial portion of their property business to remain in the hands of an organization which is not only wholly owned and completely dominated by the railroad industry, commercial air transportation's principal competitor, but which was created by the railroad industry for the very purpose of moving a type of property traffic via rail that the air transportation industry regards as constituting one of its greatest business poten-

**Airlines spokesmen disclose a strong sentiment in favor of the development, on a nation-wide basis, of their own air express and air cargo ground services.**

By JOHN H. FREDERICK

*Air Cargo Consultant*

tials in the immediate future growth of property transportation by air.

Mr. Glass stated, "the air transportation industry, which has fought through the years for independence from other forms of transportation, is now independent of any control by surface forms of transportation. It wants to remain independent; and should be independent for reasons well founded in sound principles of national policy, and should not be forced to turn a very important part of its property business over to an

organization such as REA and thus be saddled in the worst possible manner—dependence for traffic development and revenue—with control by its principal competitor."

Readers of *DISTRIBUTION AGE* will find something quite familiar

<sup>1</sup> See "Some Problems of Air Cargo Development", Vol. 41, No. 6, June 1942; "Air Cargo—Present Handicaps and a Look Into the Future", Vol. 41, No. 12, December, 1942; "Air Express or Air Cargo", Vol. 43, No. 2, February, 1944; "Airline Relations With Railway Express", Vol. 44, No. 12, December, 1945.

(Continued on Page 48)



GOOD NEWS FOR SHIPPERS!



ANNOUNCING  
***The Tradewind***  
NEW, ALL-CARGO FLIGHT  
to **EUROPE**

**EVERY  
THURSDAY**

Now American provides new, improved air cargo service, by 4-engine all-cargo Flagship, to Shannon, London, Amsterdam and Frankfurt-am-Main. Direct connections to Glasgow, Copenhagen, Oslo, Stockholm, Helsinki and major European cities.

American Airlines augments the cargo facilities of its 24 weekly passenger flights with a new all-cargo service. This all-cargo Flagship, equipped with spacious doors, can accommodate more and larger cargo shipments. Live stock are handled with expert attention. Perishables are transported without spoilage or freezing. A 7-man flight crew is trained to give utmost care to each shipment. And American provides maximum security for valuables at all times.

Recent slashes in air cargo rates, averaging 35% on shipments over 100 pounds, now make American's time-saving air cargo service more economical than ever. For information consult Railway Express Agency, your foreign freight forwarder or your nearest American Airlines office.

**AMERICAN AIRLINES**

AMERICAN AIRLINES, INC. • AMERICAN OVERSEAS AIRLINES, INC.

# CENTRAL CONTROL AT A GLANCE

*Efficient operation demands fast, adequate maintenance control. New visual control saves time and money, enables resources to be used to best advantage.*

By KELCY KERN

**F**OR MANY years vehicle service in the transport field has needed some form of factor control for efficiency in operation and for the convenience of management. As a rule, the motor transport company has relied upon written and filed records which are more or less "past history," and which call for analysis under difficulties in order to arrive at an approximation of the service picture.

However, the Silver Fleet Motor Express, Inc., Indianapolis, has in use a system of visual control which, according to Louis C. Wolff, superintendent of maintenance, has vastly improved the whole picture.

Said Mr. Wolff: "We are using the new visual control system for what we term our 'capitalistic maintenance control.' We, like many large truck operators, were

always inconvenienced by not having available a visual up-to-the-minute control of vehicle service and vehicle cost data. It was necessary for us to refer to quite a number of hidden records in order to determine exactly what was going on insofar as our vehicles were concerned. All of these inconveniences were eliminated and many advantages gained by the use of visual control board operations."

This system has proved to be flexible in the extreme in making it possible to embrace all wanted factors in a single visual presentation. The board used in the organization is extremely simple, and can be operated by an intelligent routine office worker. The flexibility of the method will be easily realized from the description.

A visible index is located at the left side of the board, used to hold

the permanent card records of the items or elements under control. There are 100 card pockets on each panel. A legend at the top of the board is used to show the meaning of the pegs and cords.

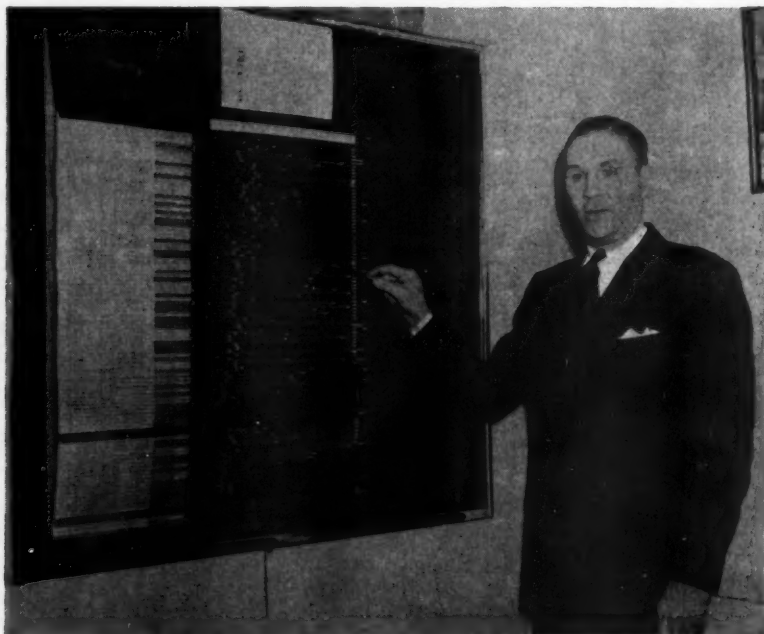
A peg hole section is placed on the main body of the board. A heading strip is attached across the top of the peg hole section to reveal quantity and/or time represented by peg holes from left to right. There is one tape peg for each item in the visual record panel, and each is numbered to correspond with the card pocket at its left. Each peg is attached to a cord which pulls outward from the board so that it may be extended from left to right on the board as needed. The signal pegs are to be located, according to procedure, in the various peg holes,

*(Continued on Page 71)*

This board enables visual vehicle maintenance cost control.



Visual Control obviates necessity of frequent recourse to many separate records and data sheets.



**You've been hearing a lot about  
truck production problems...**

***but have you  
noticed what  
Studebaker trucks  
are doing?***

**They're 'way up in production  
... 'way up in registrations ...  
many times ahead of  
Studebaker's best pre-war record!**

**Is it any wonder that  
Studebaker is the new  
"big name" in trucks?**

**"Our Studebakers  
out-pull our other trucks"**

**"Recommend Studebaker trucks  
highly for performance  
under load"**

**"Drivers tell me they  
ride easier and  
handle easier"**

**"Our Studebakers  
average more miles  
per gallon than our  
other trucks"**

**"Other trucks in  
same price range  
cost us much  
more to run"**

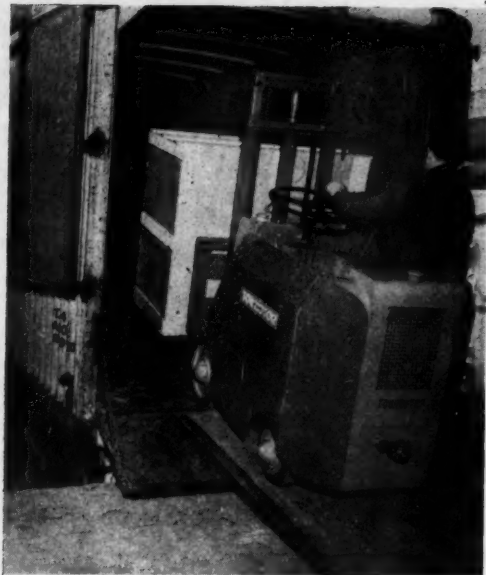
**"More economical in mountain  
country than any other truck  
we operate"**

**"Our Studebakers have  
reduced our costs an  
average of 17% per truck"**

**STUDEBAKER**  
**Builder of trucks you can trust**

The Studebaker Corporation, South Bend 27, Indiana, U.S.A.





# OVER-THE-HIGHWAY HANDLING

*Highway transportation is a natural for mechanized handling . . . It is to the advantage of the carriers to use, and to advise their shippers to use, modern materials handling equipment and techniques.*

By MATTHEW W. POTTS

*Materials Handling Consultant*

**T**HERE was a time, not so long ago, when the railroads and water carriers refused to consider over-the-highway transportation as either actual or potential competition. That was back in the days when highway transportation was done on a "hit-or-miss" basis. Nevertheless, a new industry, and one that was to add a few more gray hairs to the head of railroad management, was in the making. It was not long before door-to-door delivery was winning the support of shippers because it meant less handling and consequently more economical distribution. Small independent shippers were becoming large fleet owners with well organized operational schedules. Improvements in truck types, in tire construction, and in handling equipment and techniques followed. Then came the use of semi-trailers and full trailers. Over-the-highway transportation was big business.

When organizations become large, investments in equipment increase and frequently there is a tendency to remain static because changes involve large capital outlays. The same financial considerations too often prompt management when ordering replacements to specify "the same as before." This same tendency to resist change, long evident in railroad management, has been an im-

portant factor in enabling the motor carriers to divert much railroad business. Now there is some danger that the larger Class 1 motor carriers may fall into the same error.

Many new developments were taking place prior to the war. Doubtless, the trucking industry would have adopted many of these innovations with the aim to making their services more efficient had it not been for the wartime demands put upon them by the army and navy.

Over-the-highway transportation and all of the facilities of the equipment manufacturers, were diverted to winning the war. During hostilities manufacturers of automotive equipment gained considerable experience in the building of specials to meet army and navy requirements. These developments, however, could not be easily applied to commercial transportation on short notice. The secret nature of these developments also made it impossible for prospective purchasers to know what eventually would be available. Also, sales organizations were unaware of these developments because they had nothing to do with government sales.

Much equipment now being purchased seems to be ordered on the basis of old designs or has been acquired from the war surplus.

Over-the-highway transportation is big field for materials handling. The only commodity the carriers are selling is service in the transportation and handling of merchandise. If this service is to be efficient, every possible mechanical device should be utilized to reduce the number of handlings and to reduce the cost of necessary handlings in order to speed up operations.

At present the truck operating companies appear lethargic in the matter of modernizing their terminals. Even though new terminals are being built and transfer terminals are under construction, the emphasis seems to be on buildings rather than on the operations which are to be performed in these buildings. A number of new buildings are so small that they are hardly put into operation before congestion occurs on the platforms. Frequently, there is insufficient room to operate power-driven fork trucks, or hand-controlled power lift trucks. The superstructures are not designed to carry overhead cranes or hoists. It seems a very short-sighted policy to build new terminals and transfer points without taking advantage of every modern materials handling device available in order to reduce the amount of manual labor required for the loading and unloading of

*(Continued on Page 67)*

# DEPENDABLE POWER



AUTOMATIC FORK TRUCK



## EXIDE-IRONCLAD POWER AND BATTERY ELECTRIC TRUCKS

**Keep materials moving steadily,  
safely, at minimum cost....**

You can make substantial savings in materials handling costs by using the modern, efficient method employed by so many others throughout your industry. They have delegated their loading, unloading, lifting, hauling, placing and stacking to the time-and-cost-cutting team—battery electric trucks and Exide-Ironclad Batteries.

Exide-Ironclad Batteries have the high power ability, the high maintained voltage and the high capacity that materials handling requires. You can always count on Exide-Ironclad Batteries for dependability, long-life and ease of maintenance.

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AUTOMATIC TRANSPORTER



# Refrigerated Trucks Cut Food Costs



**Refrigerated trucks provide fast, dependable transportation for cheese, fish and other perishables.**

By WARREN E. CRANE

*Special Correspondent*

REFRIGERATED aluminum trucks and trailers operated by the Pacific Highway Transport of Seattle under the direction of John W. Macdonald, its vice president and general manager, have been responsible for a great saving of valuable food in Washington, Oregon, and Idaho during World War II and the period that has followed it. This organization is a subsidiary of Inland Motor Freight, and the two companies do a three and one-half million dollar gross freight business annually with their 400 units, and cover about eight and one-half million miles.

One of the Pacific Highway Transport's outstanding achievements is the skillful way in which it has distributed the Kraft Foods Co.'s cottage cheese and kept it at a 39 deg. temperature from the time it leaves the vats until it reaches the distributors in various parts of the Pacific Northwest. For example, the cottage cheese

destined for Spokane is packed into the insulated, pre-cooled aluminum trucks and trailers, which are refrigerated with dry ice. The temperatures are carefully checked by company officials to see that it is as close to 39 deg. as possible. The load has a trip of over four hundred miles ahead of it. It leaves Chehalis at 2 p.m. and arrives at seven the next morning ready to be distributed to various retail stores.

The company also delivers Olympia beer in its trucks at a temperature that is not below 34 deg. and not above 40 deg. The inside of the keg is lined with pitch and hot rosin and all drivers must drive carefully so that none of the pitch will chip off the inside of the barrels and change the taste of the beer.

Draft beer is not pasteurized, therefore it must be handled with special care. If its temperature is kept just above freezing, the yeast germs are kept alive. If it



John W. Macdonald, Vice President and General Manager of Pacific Highway Transport, has made a special study of refrigerated motor freight.

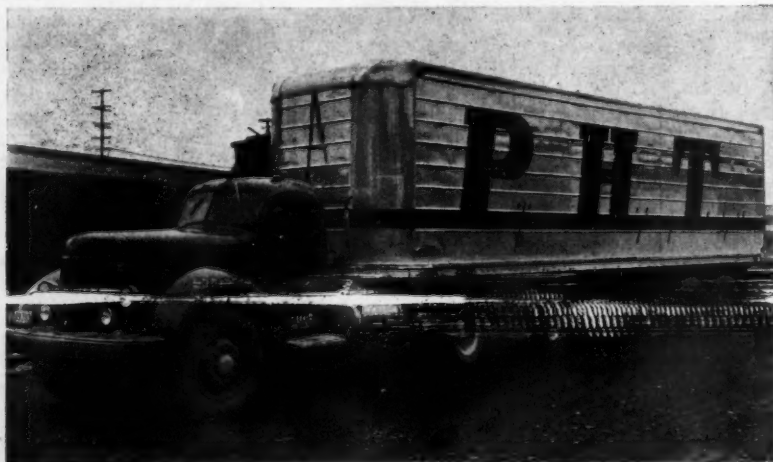
drops below freezing, the germs are killed and the beer loses some of its flavor. The Pacific Highway Transport assigns specially trained drivers to handle this product.

Harry R. Beard, a director of the New England Fish Co. in charge of its research department, and former Chief Technologist of the U. S. Bureau of Fisheries, said: "Our company is the largest handler of halibut on the Pacific coast. We operate our own salmon traps in Alaska. When our fleets are out a long distance from our canneries, we ice our fish before we bring them into our various headquarters in Vancouver, Prince Rupert, Everett, Ketchikan, Astoria, Seattle or other Northwest cities. We also purchase a large amount of fish from the halibut fleets who deliver their fish to our receiving stations.

"We find that it is profitable to pack halibut and salmon in boxes of crushed ice and ship them to the East in cars with ice bunkers at each end. We also ship a large part of our fresh fish to different

*(Continued on Page 73)*

International Truck with Refrigerated Aluminum Body for the Transportation of Food Products in service of Pacific Highway Transport of Seattle and Spokane.





# READ WHY A TRUCK LIKE THIS

## CAN SAVE YOU MONEY!

This truck—like every Dodge “Job-Rated” truck—is built to fit a specific hauling job.

It's powered with exactly the right one of 7 engines—plus the right gear ratio—to provide the pulling power the job requires, with maximum economy.

It's built with exactly the right clutch, transmission, rear axle—the right units throughout . . . for “top” performance, longer life, and maximum economy . . . on the job for which it was built.

It stands to reason that a truck “Job-Rated” to haul your loads over your roads —will save YOU money!

You can get a truck to fit your job—a truck to give better performance, better service to your customers, and to save you money!

Simply explain your hauling problems in detail to your Dodge dealer. He has the engineering data from which to recommend the best truck investment you can make.

★ ★ ★

Your Dodge dealer is interested in your continued satisfaction: *First*, by selling you a truck that fits your job; *Second*, by giving you dependable Dodge truck service; *Third*, by providing you with truck parts that are identical with original Dodge “Job-Rated” truck parts.



ONLY DODGE BUILDS

# DODGE

## “Job-Rated” TRUCKS

Fit the Job . . . Last Longer !

in Mr. Glass' words. As long ago as 1942, this publication advocated the same thing<sup>1</sup> and has repeatedly pointed out that air cargo would never come into its own until the airlines came to the realization that they must provide a service which would operate solely and exclusively in the interests of air transportation and the shipping public and permit them to do the competitive selling job necessary to the development of air cargo's full potential in the nation's transportation pattern. It is most interesting, therefore, to find the airlines now coming boldly out with the statement that they "do not believe that an organization created by the railroad industry for the purpose of handling thousands upon thousands of small packages by rail on a nation-wide basis can be expected to stimulate the transfer of that traffic, which traffic averaged but 56 lb. per package in 1946, to the airlines."

Such a statement is significant as it is exactly this type of traffic which the airlines, assuming proper promotion and development, have within their grasp. The traffic that is now moving in the rail services of REA is traffic which can bear a premium rate for fast movement and special handling and the airlines' competition for that traffic is based on the fact that they can provide an even faster transportation and provide better special handling. This situation is made especially significant by the fact that much rail express traffic, under the rate increases recently granted by the ICC, will move at rates approaching the air cargo rates announced by certain airlines.

Through its right to use passenger trains for the movement of its traffic, REA provides what is generally recognized as the fastest means of surface transportation. Accordingly, in the absence of air service, what the airlines are now handling in their air cargo services would undoubtedly revert to REA as the next fastest means of transportation. Accordingly, also, in the absence of REA service, the great bulk of shipments requiring

expedition, and which would be able to pay a premium rate, would be diverted to the air. The airlines therefore feel that "under such circumstances, REA cannot be relied upon to promote and encourage the diversion of traffic which it is already handling by rail to a directly competing air service. It would be against every human instinct—to say nothing of vested interest—for REA to encourage such a diversion."

In developing their plan for property transportation, the airlines plan to provide not only an air express but a complete air cargo service, although they recognize that the formulation and implementation of a plan for an integrated nation-wide air cargo service is not an overnight job and may take months or years to work out. But they now are willing to say emphatically that they want to provide that service themselves; that they believe they can now plan to do the job themselves; that they can *actually* do the job themselves; and that an outside agency is no longer necessary. In other words, from now on air cargo will be strictly airline business!

But the airlines are not ready to do entirely without some of the REA services if they can hold them. They want to continue the ground services of REA "substantially as at present" on a non-exclusive basis. This means that REA would be given an opportunity, if interested, to enter into pickup and delivery arrangements for the airlines at points where it is now performing such service under the various individual company air express agreements. In addition, the airlines urge REA to continue to handle air cargo (air express) to and from off-airline points in rail express service if it would be willing to assume the role of a connecting carrier, with through service arrangements, with the airlines. In the latter event it is contemplated that through rates, covering rail express service to and from the interchange point and air service beyond, would be pub-

lished. But *air express*, as we have known it for the past twenty years, would be eliminated from shippers' vocabularies as soon as possible.

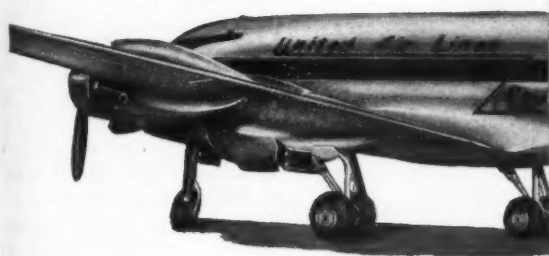
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There is considerable doubt that REA would consent to operate on the basis of a local cartage company on any "non-exclusive basis." About a year ago *DISTRIBUTION AGE*<sup>2</sup> published an exclusive interview with L. O. Head, president of REA. Mr. Head then stated: "REA will not become a local trucker for any carrier, non-scheduled, contract or airline" but that "if conditions warranted REA going into the air cargo pickup and delivery field on an overall basis to be handled as air express is handled, it would be taken under favorable consideration." To act simply as a local trucker would, according to Mr. Head "be contrary to REA policy which is to give a complete pickup and delivery service with all the responsibilities attached thereto."

The airlines have now gone definitely on record as to their intentions. It is uncertain just what REA will do. It must be borne in mind, however, that the contracts which REA has with the individual airlines can be cancelled by either party on relatively short notice. It is hard to say just what

<sup>2</sup> See "REA and Air Cargo", Vol. 45, No. 10, October, 1946.

(Continued on Page 87)



# MORE SPACE TO MORE MARKETS

## UNITED AIR FREIGHT FLIES COAST-TO-COAST IN FAST, 4-ENGINE CARGOLINERS!

United's Cargoliner fleet is growing. More shipments, larger shipments to more markets . . . now move via United Air Freight!

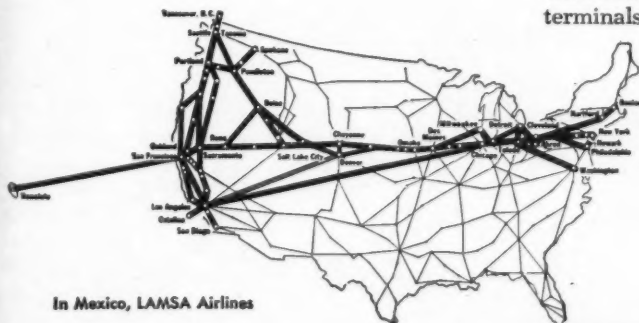
Next-day delivery across the continent. Late evening shipments leave New York and Philadelphia on large 4-engine Cargoliners . . . with 18,000 lbs. capacity . . . arrive in Cleveland and Chicago before dawn . . . in Denver before business . . . in Oakland and San Francisco shortly after noon.

Cargoliners for New England. Shipments from Boston and Hartford now reach Cleveland, Toledo and Chicago well before the business hour . . . in United's all-cargo Cargoliner . . . with 6,000 lbs. capacity.

Remember, every United flight carries Air Cargo to 70 cities along United's Main Line Airway . . . 7 international terminals expedite connections to major world markets.

For all information on air transportation, call your local United sales representative. For a copy of United's localized Air Freight tariff, write: Manager of Cargo Sales, United Air Lines, 5959 S. Cicero Ave., Chicago 38, Illinois.

Ask about United's Hawaiian Air Express.



In Mexico, LAMSA Airlines

# UNITED AIR LINES

**Air Freight Service**

Pickup and Delivery in all Major Cities



in Mr. Glass' words. As long ago as 1942, this publication advocated the same thing<sup>1</sup> and has repeatedly pointed out that air cargo would never come into its own until the airlines came to the realization that they must provide a service which would operate solely and exclusively in the interests of air transportation and the shipping public and permit them to do the competitive selling job necessary to the development of air cargo's full potential in the nation's transportation pattern. It is most interesting, therefore, to find the airlines now coming boldly out with the statement that they "do not believe that an organization created by the railroad industry for the purpose of handling thousands upon thousands of small packages by rail on a nation-wide basis can be expected to stimulate the transfer of that traffic, which traffic averaged but 56 lb. per package in 1946, to the airlines."

Such a statement is significant as it is exactly "this type of traffic which the airlines, assuming proper promotion and development, have within their grasp. The traffic that is now moving in the rail services of REA is traffic which can bear a premium rate for fast movement and special handling and the airlines' competition for that traffic is based on the fact that they can provide an even faster transportation and provide better special handling. This situation is made especially significant by the fact that much rail express traffic, under the rate increases recently granted by the ICC, will move at rates approaching the air cargo rates announced by certain airlines.

Through its right to use passenger trains for the movement of its traffic, REA provides what is generally recognized as the fastest means of surface transportation. Accordingly, in the absence of air service, what the airlines are now handling in their air cargo services would undoubtedly revert to REA as the next fastest means of transportation. Accordingly, also, in the absence of REA service, the great bulk of shipments requiring

expedition, and which would be able to pay a premium rate, would be diverted to the air. The airlines therefore feel that "under such circumstances, REA cannot be relied upon to promote and encourage the diversion of traffic which it is already handling by rail to a directly competing air service. It would be against every human instinct—to say nothing of vested interest—for REA to encourage such a diversion."

In developing their plan for property transportation, the airlines plan to provide not only an air express but a complete air cargo service, although they recognize that the formulation and implementation of a plan for an integrated nation-wide air cargo service is not an overnight job and may take months or years to work out. But they now are willing to say emphatically that they want to provide that service themselves; that they believe they can now plan to do the job themselves; that they can *actually* do the job themselves; and that an outside agency is no longer necessary. In other words, from now on air cargo will be strictly airline business!

But the airlines are not ready to do entirely without some of the REA services if they can hold them. They want to continue the ground services of REA "substantially as at present" on a non-exclusive basis. This means that REA would be given an opportunity, if interested, to enter into pickup and delivery arrangements for the airlines at points where it is now performing such service under the various individual company air express agreements. In addition, the airlines urge REA to continue to handle air cargo (air express) to and from off-airline points in rail express service if it would be willing to assume the role of a connecting carrier, with through service arrangements, with the airlines. In the latter event it is contemplated that through rates, covering rail express service to and from the interchange point and air service beyond, would be pub-

lished. But *air express*, as we have known it for the past twenty years, would be eliminated from shippers' vocabularies as soon as possible.

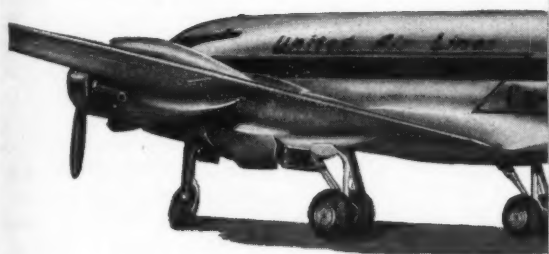
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(Continued on Page 87)



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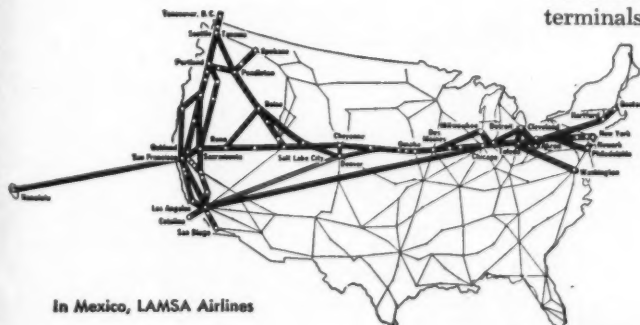
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# UNITED AIR LINES

**Air Freight Service**

Pickup and Delivery in all Major Cities

# MECHANICAL VERSUS MANUAL PACKING

*The larger percentage of loss and damage claims in transit result from manually packed shipments . . . The automatic packaging industry is equipped and prepared to assist shippers solve their individual packing problems.*

By CHARLES L. SAPERSTEIN

Packaging Consultant

**A**LL units making up packaged cargo fall into two categories. First, sealed packages which are automatically issued by some form of mechanical behemoth and, secondly, those prepared manually and individually. We have cartons into which contents are automatically fed and the flaps closed and secured entirely by machines designed for that specific purpose. On the other hand, there are also paperboard containers in transportation which are handled and packed entirely by warehousemen or shipping department personnel. There are nailed wood boxes born of nailing machines which all but eliminate the man with the hammer and there are wooden containers which have to be fashioned individually to the cargo being forwarded. There are standard shooks, automatically made wire-bound boxes

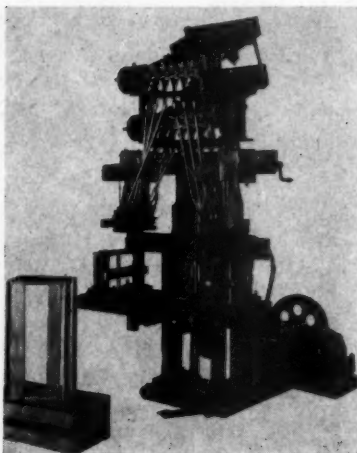


Photo: Wm. S. Doig, Inc.  
Double arm box assembler.

and mass-produced cleated plywood units, all intended to fit into and complete a uniform production line operation. These are ground out by hundreds of thousands and constitute the familiar shipping cases found in every

freight terminal. But there are other operations, some quite sizable, in which the packing is done from open stocks of merchandise too large or complex to permit of automatic operation. Consequently, each shipment is a made-to-order unit. Here, the safety of the cargo depends entirely upon the ability of the packers, boxers and craters to comply with accepted shipping rules and standards in the filling of each order.

Manual operators sometimes contend that the machine-made package cannot equal human craftsmanship. But experience does not support such a contention. A far greater percentage of damage and claims result from shipments packed manually than from shipments packed wholly or partly by machinery. The reason is self-evident. In the art of automatic packaging, skilled engineers

Automatic style 4 box end nailer and cleater. 36 ends per minute.

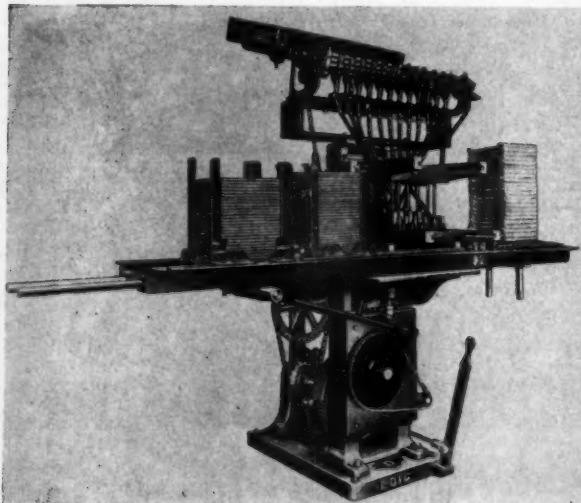


Photo: Wm. S. Doig, Inc.

Automatic carton sealer.



Photo: Triangle Package Machinery Co.



achieve by research and experience a shipping package of uniform excellence. With each report of failure or unsatisfactory arrival of merchandise, adjustments are tried, changes are made and new devices are added, until the basic fault is corrected. A mechanical operation, once perfected, has a tendency to remain fixed.

In the case of the shipping unit which has been packed and secured entirely by hand, a human error or a neglected step may result in case failure. Seldom is a real study made into the cause of failure of the man-made shipping case. It may be that the packer failed to select the type of container which would be strong enough to stand up until the end of the journey, or the failure may be charged up to poor interior packing or cushioning, or to inadequate gluing, nailing or strapping. Assuming the cause is isolated and the packer at fault has been instructed so as to prevent similar errors in future, there is no assurance that some new neglect won't be chalked up against him the next day.

As has already been mentioned, there are hundreds of situations where manual packing is a must. Hardware, automotive or machine parts dealers, mail-order houses and general retailers are forced to prepare shipments of special orders. Here, nothing short of special packing will answer. At best, such shippers can supply their packers only a range of standard-size containers of several types. These are expected to meet a large percentage of the packers' needs. As a result, voids must be filled, boxes cut down or improvised. Efficient packing requires facilities for making up special boxes when certain shipments defy standard sizes. In such circumstances, the know-how and materials for internal bracing, cushioning, nesting and consolidating diverse items are of extreme importance.

Manual packing is required of those who prepare machinery, furniture, store fixtures and most export cargo for shipment. The secret of successful manual packing is to be found first, in the use of adequately trained personnel



## CUTS LOADING TIME 87 PERCENT

THE combination of palletized unit loads, battery-powered fork trucks, and rolled skate (floor type) conveyors in its highway trailers has accomplished four important objectives for the Electric Storage Battery Co., Philadelphia: 1. Speeded the flow of materials between Exide plants. 2. Increased productivity per man-hour. 3. Increased availability of highway trailer equipment. 4. Lowered non-productive handling costs which are so large a part in all production costs. Specifically, the loading and unloading of a 12-ton highway trailer has been cut from 360 man-minute per handling operation to a 46 man-minute operation, representing a time saving of 87 percent.

THE OPERATION. This increased productivity of men and trailers is obtained by handling materials in unit loads on 40 in. by 48 in. pallets. (Pallets of this size were selected because they conform to inside trailer dimensions; in other words, they divide evenly into width and length measurements) Outside the trailer, palletized loads are handled by electric fork trucks. Inside the trailer, palletized loads are handled on roller skate floor conveyors. The short lengths of conveyor are removable when a trailer is to be used to transport non-palletized loads. Loading or unloading is a two-man operation, which takes 23 minutes, or a total of 46 man-minutes. The operator of an electric fork truck, working from either ground or platform level, sets a double pallet load of bags, barrels, boxes or bales, on one of the trailer conveyor lines. The man inside the trailer then pushes the palletized load back into position. Done manually, the operation, which would require four men, would take from 85 to 100 minutes, or an average of 360 man-minutes. Since the use of 40 in. by 48 in. pallets gives reasonably tight floor coverage, load shifting in transit is negligible. A wedge, placed behind last pallets loaded, blocks movement along conveyor. Shifting of partial loads is prevented by use of conveyor blocks, by an end gate when necessary, or by roping.

and use of correct techniques; second, in continuous supervision, training and policing of the quality of outgoing shipments; and third, in inspection upon arrival and a minute checking of condition reports of cargo upon arrival. In emphasizing the uniform superiority of automatically handled shipping cases over the average of manually-packed cases, the implication that the latter cannot also

be uniformly excellent is not intended. However, a careful supervisory program is necessary if the pitfalls of human negligence are to be avoided.

There are situations in which manual packing is required, there also are situations in which nothing but the mechanical preparation of shipping units is feasible. In the sacking of flour, stock feeds  
(Continued on Page 80)

# TRANSPORTATION

## ...Its Worldwide Problems

**Any plan for the overall improvement of transportation must provide for the modernization of our waterfront terminals to enable all forms of transportation to be served.**

By HENRY D. CLEVELAND

Chairman of the Board

John S. Emery & Co.

IS AMERICAN business to continue to have the right to free choice of the forms of transportation best suited to its needs? This right can be maintained only if each of the existing modes of transportation is efficiently coordinated with each, and all, of the others. Unless this coordination is effected voluntarily by free enterprise it will be effected, as I have said before and will say again, by government edict. Today the flow of goods in distribution is impeded by the interminable delays, due for the most part to inefficient and outmoded equipment and practices, which occur in railroad-owned water front terminals everywhere. Any plan for the improvement of our overall transportation has as a major premise the need for the modernization of

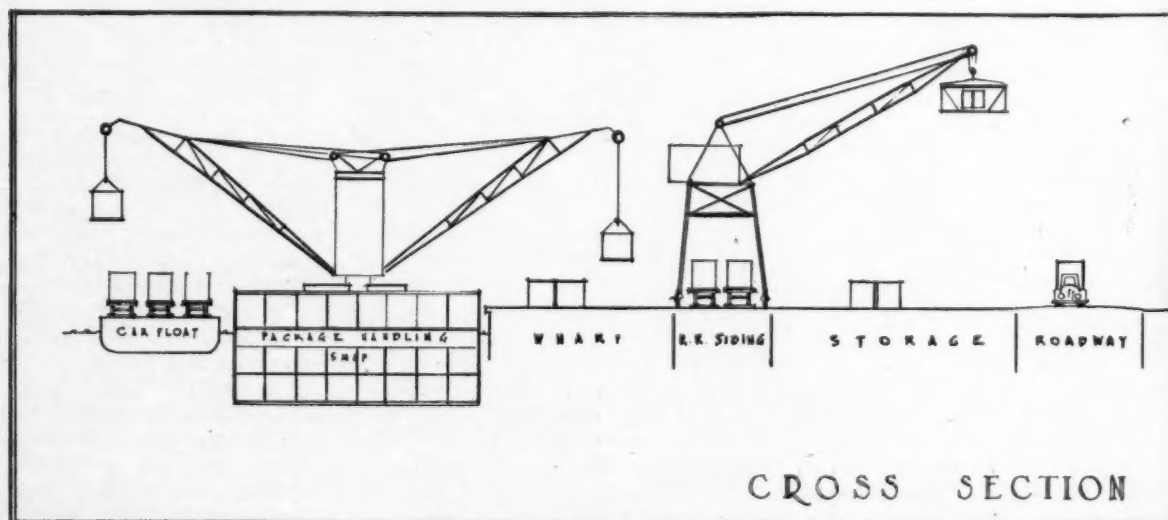
these waterfront railroad-owned terminals to enable all forms of transportation to be served and traffic interchanged on a cooperative basis. Unless these terminal bottlenecks are converted by the railroads into the expeditors of commerce, we can look for the rise of more and more port authorities throughout the country.

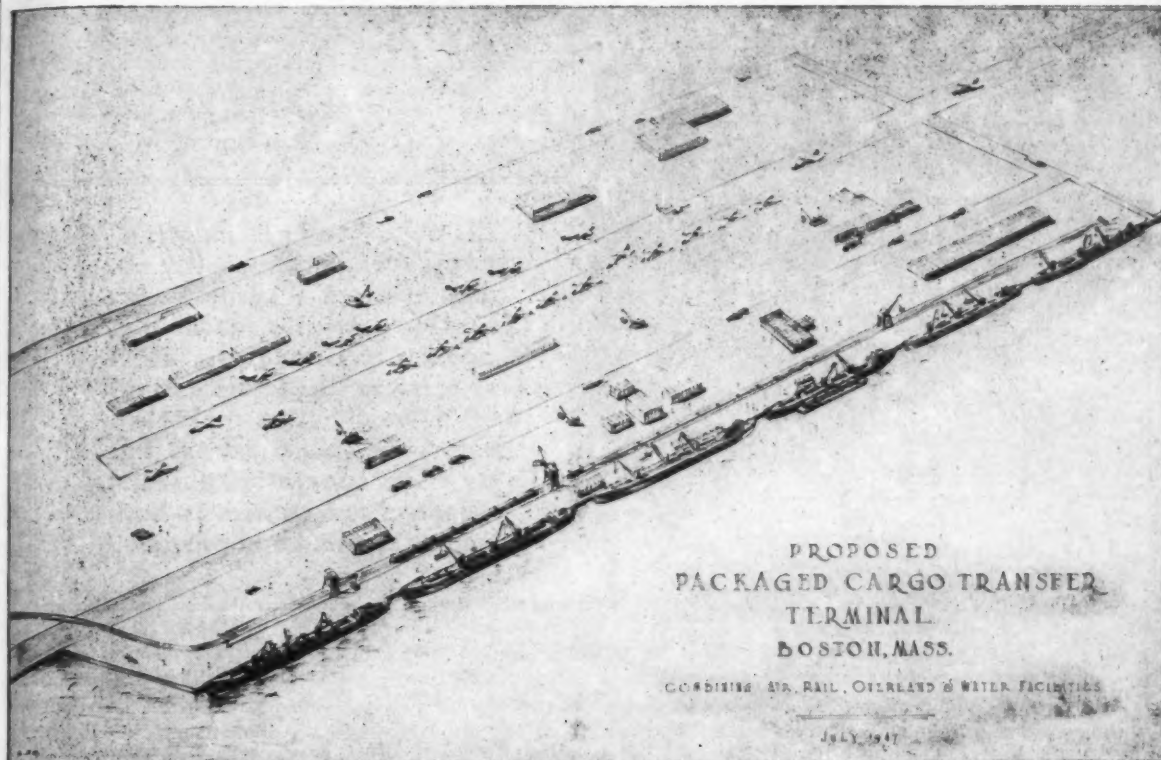
Some early and sporadic attempts at terminal improvement were made during the years of World War I. During these years John S. Emery & Co., with which I long have been associated, was actively engaged in the water transportation of lumber. The lack of proper shore facilities seriously retarded the earnings of our ships and I recall how, in an attempt to bring about some betterment, I made some recommendations which were put into effect

by Messrs. Lawrence and Wiggin, who shipped Pacific Coast lumber products in our vessels. Many of the suggestions then made are incorporated in the present Wiggin Lumber Terminal in Boston. This terminal, it should be pointed out, expeditiously and efficiently handled for the British Government during the second world war more than 10,000 carloads of Pacific Coast lumber shipped by rail from British Columbia.

Another early effort to improve terminal operation, stemming, as did mine, out of the urgent need for adequate shipping facilities during World War I, was made by the Cincinnati Motor Terminal Co. This company was enabled as a result of an order by William Gibbs McAdoo, then Secretary of the Treasury and Railroad Administrator, authorizing the rail-

roads their design-able f-trailer other was in improv the co by the





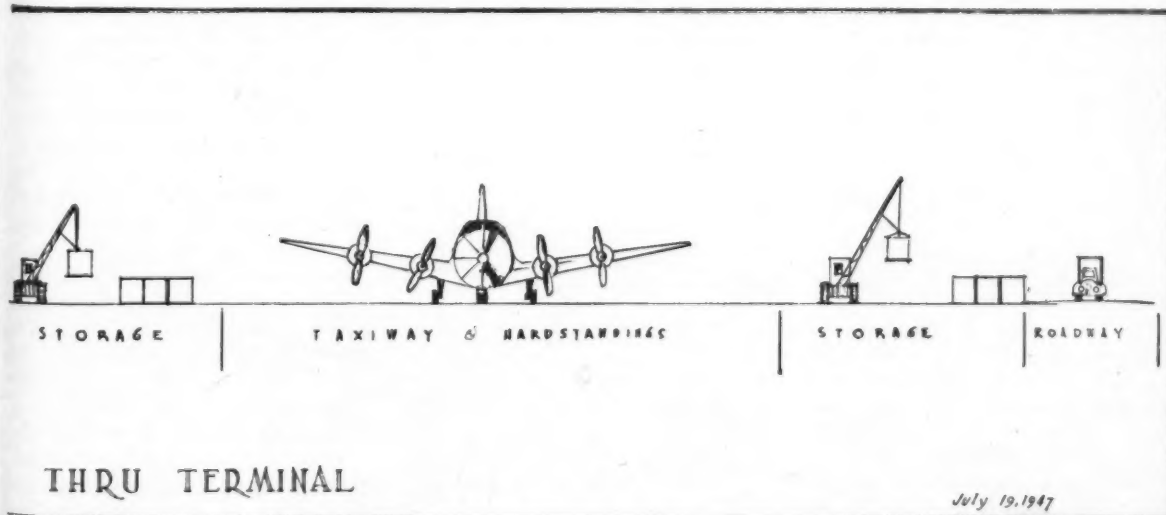
roads serving Cincinnati to pool their pick-ups and deliveries, to design and build containers suitable for use with its trucks and trailers and interchangeable with other types of carriers. Service was immeasurably speeded up and improved. The inherent merit of the container system is evidenced by the fact that this company is

still using it if only in a limited territory, extending only to Dayton and Toledo.

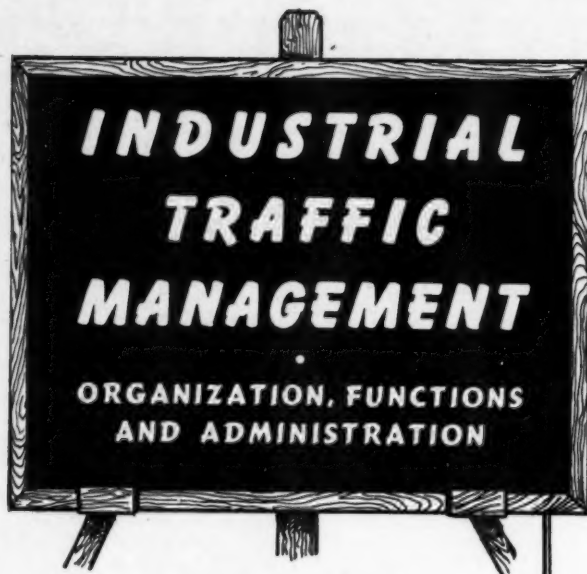
Immediately following the close of the first World War—just prior, as I recall, to the return of the roads to private operation—there was some talk of inaugurating a container pick-up and delivery system patterned after the Cin-

cinnati operation to serve 35 cities. The object, of course, was to obviate the duplication of terminals and to overcome operational inefficiencies made so manifest during the war. When, however, the railroads got their properties back this plan was abandoned.

(Continued on Page 60)







BY G. LLOYD WILSON

**The objective of an industrial traffic department is to obtain efficient transportation services for the assembly, manufacture and distribution of materials and products at the lowest overall net cost, but since each business has its own special problems, standardized control is both impossible and undesirable.**

**T**HE OBJECTIVE of an industrial traffic department is to obtain efficient transportation services for the assembly, manufacture, and distribution of materials and products at the lowest overall net cost to the corporation. Work affecting so many phases of industrial activity must be closely correlated with the work of other departments. In the organizing of a traffic department, the primary objective is the establishment of a unit which can efficiently perform work, almost every phase of which must be so correlated with that of other departments as to achieve the overall company objectives. Many large traffic departments, particularly those in industries which operate a number of plants, have a general traffic department under a general traffic manager, and subdivisions under traffic manager or several such subordinate officers.

The general traffic manager of a typical large industry operates under authority delegated by the president of the company. In order that he may be free to devote his attention to basic policy matters, a minimum number of functions are retained by the general traffic manager. He is charged with the responsibility for overall planning; top direction; establishment of traffic department objectives, policies, controls, and measures of

results. He is available to advise the president in the determination of company policies pertaining to traffic and transportation. Authority is delegated to the traffic manager for the execution of all other traffic department functions.

The traffic manager or traffic managers report to and are accountable to the general traffic manager. Their principal responsibility is that of administration.

### Standardized Traffic Control

**A** STANDARDIZED organization for the control of traffic is probably both impossible and undesirable. Each business has its different set of problems. An industrial plant may be wholly centralized, or it may consist of many units separated by great distances. Its inbound raw materials may be limited in number or numerous and constantly changing in character. Similarly, the processes may be so simple as not to require any form of transportation in the course of production more complex than the usual production line operation, or the materials flow may attain such variety as to require the use of almost every form of transport. In the matter of distribution of finished products, the market area may be so limited that delivery service is a relatively minor activity; or, the market may extend to the whole world, involving the use of every type of transportation and presenting many problems in the movement of materials. Many industries depend upon materials movement in all the phases of assembly, production, and delivery. But the problem is not a uniform one because of the varying degrees of integration of their plants and because of differences in problems of assembly and distribution—G. L. W.

They retain a minimum of functions for which they are personally responsible. Most of the functions of the department are delegated to other individuals or units of the organization.

The assistant traffic managers, reporting to the traffic managers, assume those administrative responsibilities considered of secondary nature. They delegate many operating functions to the general supervisors or chief clerks who report to the assistant traffic managers. These supervising employees correlate the activities of the major divisions into which the work of the department is divided.

The principal sub-divisions of traffic departments usually are: the rate and route bureau, transportation bureau, claim bureau, and statistical bureau. Each of these sub-divisions is headed by a bureau supervisor. These supervisors are responsible, under the general supervisor, for the efficient operation of their respective divisions. The delegation and redelegation of these functions and responsibilities create an unbalanced working arrangement, but result from the application of sound principles of organization planning. To be as fully effective as possible, executives and supervisors must be unhampered by routine duties and should delegate all but a minimum of functions.

"Management by exception" can thus be attained. This fulfills one of the cardinal requirements of general administrative policy.

In a representative traffic organization the duties specifically assigned to the general traffic manager include:

1. Serving the president in the development and announcement of overall company policies;

2. Representing the company in conferences with governmental agencies in formulating rules and regulations pertaining to transportation;

3. Negotiating for relief from or modification of the orders of the office of defense transportation or the interstate commerce commission bureau of service when compliance with those orders is found to be impractical; and

4. Servicing the finance department in the establishment and maintenance of budget controls.

The control of traffic is a highly important executive function. To be successful, it must establish overall broad policies that will result in the most profitable possible selection and use of transportation, coordinating and cooperating with other executives in the attainment of these objectives.

The general traffic manager must plan his organization so as to secure that same cooperation and coordination at all staff and line levels if the movement of materials and personnel is to be performed efficiently and at the lowest possible cost. At this level the contacts with various governmental agencies assume the quality of what might be termed traffic statesmanship. In negotiating for relief or modification of restrictive government orders, the general traffic manager, by carefully presenting his views, can exert influence in a proper manner upon those charged with development of legislation applicable to transportation or those in governmental administrative capacities. As a specialist in the important field of traffic management, his advice and counsel may become translated into legislation of much value to the nation at large.

The responsibilities of a typical traffic manager include:

1. Recommending to the general traffic manager the initiation of or the intervention in complaints filed with the Interstate Commerce Comm. and state regulatory bodies, in connection with which he is charged with the assembly of factual information and testimony;

2. Obtaining new rates and ratings and securing reductions in existing rates and ratings from or to company plants;

3. Participation in hearings before carriers' rate-making bodies in accordance with assignments from the general traffic manager;

4. Counseling and making recommendations on traffic matters to the operating departments in order to assist in the determination of proposed investments for new facilities or changes in plant layouts or locations in order to bring about lower costs or improved techniques;

5. Coordinating routing of all shipments to best overall advantage;

6. Maintaining good relations in the traffic field by participating in the activities of traffic organizations through membership in and cooperation with such organizations; and

7. Performing any other duties or responsibilities delegated or assigned him by the general traffic manager.

In discharging these responsibilities the traffic manager is performing what are generally considered by many to be the most important services included in the traffic field.

The assistant traffic manager's responsibilities include:

1. Assisting the traffic manager in obtaining new rates and ratings and securing reductions in existing rates and ratings;

2. Assisting the traffic manager in participation in hearings before carriers' rate-making bodies;

3. Interpreting carriers' demurrage rules and recommending to the carriers desirable amendments of such rules;

4. Cooperating with carriers in the formulation and amendment of their loading rules and supplying interpretation to the operating departments;

5. Maintaining good relations in

the transportation field by membership and participation in the activities of traffic and transportation associations; and

6. Performing other duties or responsibilities as may be assigned by the traffic manager.

The duties of the assistant traffic manager, generally, are complementary to those of the traffic manager.

The responsibilities of the general supervisor as the employee primarily responsible for the routing work of the traffic department, include:

1. Arranging for the movement and handling of shipments of goods via water carriers, including the furnishing of rates in connection with shipments;

2. Auditing and approving bills for rental of railroad cars and locomotives and other transportation equipment;

3. Cooperating with carriers' weighing and inspection bureaus on matters pertaining to weights and descriptions of products;

4. Interviewing carriers' representatives engaged in traffic solicitation; and

5. Performing other routine duties or responsibilities assigned by the assistant traffic manager.

Many traffic departments have one or more assistants to the traffic manager engaged in special work. In one such department the work of an assistant to the traffic manager is largely concerned with transportation cost studies. Specifically, the responsibilities include:

1. Analyzing carrier rate proposals so as to advise the traffic manager with respect to action to be taken in connection with them;

2. Analyzing Interstate Commerce Comm. and state regulatory body reports, decisions, and orders, and advising the traffic manager with respect to these matters;

3. Assisting the traffic manager in the preparation of exhibits and testimony for use in hearings before regulatory bodies; and

4. Other duties or responsibilities assigned specifically or generally by the traffic manager.

The departmental functions of  
(Continued on Page 86)

## AN AIRFREIGHT MUST—(Continued from Page 27)

eries in more than 1100 city and suburban centers adjacent to their airports. United considers these motor trucking companies as their "ground agents," to perform pickup and delivery service and to feed air shipments to and from all important off-airline cities within a 100-mile radius.

In one of their recent publicity releases, United stated that more than 35 percent of the air express volume of our nation comes from cities not directly served by air; and they anticipate that they likewise may expect an equal volume percent of their own *air freight* from off-line cities. This publicity release further stated that approximately 54,000 communities, or 43 percent of all cities in the United States, are entirely dependent upon the motor vehicle for movement of freight and passengers. It was also stated that the type of motor carrier most valuable to them is the carrier who serves the smaller off-airline communities within a 100-mile radius of the airport, in contrast to the type of point-to-point motor carrier which serves only the larger cities without making intermediate stops.

This type of localized motor carrier is considered most valuable to United, because: 1. He is well known to his established customers. 2. His main job is to distribute between small communities and large cities. 3. He usually operates on a flexible schedule which can be readily adapted to coordinate with airplane arrivals and departures. 4. His deliveries and

pickups are made directly to the airport, thus eliminating the confusion and delay caused by going through the large city freight terminals.

Another example of such trucking development is provided by American Airlines. They have been using a small printed folder which tells their story of "How Wheels Help Wings by Bringing Airfreight Service to Your Door." It has prepared in such form that it may be distributed by a local trucker to his customers. Thus the trucker can tell his shippers that a telephone call will assure "same-day pick-up of his air shipment . . . a truck will come to his door for the shipment . . . it will be taken direct to the airport . . . then speeded through space at three miles a minute . . . it will be transferred to a truck for delivery . . . directly to the door and the hands of the consignee."

United Air Lines also has been one of the pioneers in Chicago in the use of what they call "mobile refrigerators for air freight shipments, to insure garden-fresh delivery of perishables." They recently announced the purchase of five such trailer units, one each assigned to their airport stations respectively at Chicago, Detroit, Newark, New York and San Francisco. These trucks are equipped with automatically acting temperature control units to keep the truck body heated, say for the protection of flowers, at 50 degrees F. The control also may be set

to maintain cooling temperatures at any desired degree down to zero. Similar temperature controls also have been built into their new fleet of coast-to-coast "flying freight cars." At some airports, United also has installed "refrigerated walk-in boxes" with capacity of 620 cubic feet.

United was a pioneer in Chicago in the use of a new development for more speedy pickup service. This is a two-way ground radio-telephone communication system, first installed on some of the trucks of the Willett Company, contractor for their Chicago air freight pickups and deliveries. Through the use of this system, within 45 seconds after the Willett dispatching office has been notified of an air freight pickup, this information has been passed on to the driver on a moving Willett truck, and he will reroute his itinerary to make the pickup immediately. As stated by United: "The speed of sound in ground handling, now coupled with that of our planes, should enable us to offer the fastest service yet developed for air shippers."

However, to summarize the Chicago situation as a whole, the motor trucking pickup and delivery service that is generally available to airfreight shippers is far from satisfactory. One of the most important needs, as expressed by Chicago shippers and traffic managers with whom the writer has talked, is a more unified city-wide trucking pickup and delivery system. Delays and inefficiencies in this operation has been so pronounced in numerous instances that all of the value from the three-to-five-miles-per-minute that is possible after the shipment has gotten into the air, is worse than wasted by the slowness and unreliability of the available ground motor pickup and delivery service.

One of the promising remedies now in process of development for the regulated airlines is being undertaken for Chicago, and also for other large airports, by the Air Transport Association, through the medium of Air Cargo, Inc. It is the plan of Air Cargo, Inc., to establish for all the larger airports unified ground pickup and de-



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livery, with standardized trucking rates, that will serve all the regulated carriers that use the airport. Such service has already been set up in Washington, D. C. and New York, and the initiation of such a set-up is in process at Chicago.

Uniform city pick-up and delivery charges are reported as already being fairly generally observed in most of the airport cities. In smaller cities, the usual rate for trucking pickup or delivery is 25 cts. per hundred pounds. The general rate in Chicago and some other larger cities has been 40 cts.; with the exception of 50 cts. in New York, Los Angeles, and San Francisco. However, it has been stated to the writer, as the experience of a person who has handled many Chicago air-cargo shipments, that a general Chicago air-cargo pickup or delivery rate as low as 25 cts. or even less could be made profitable, assuming the concentration of such handling, and one additional primary change.

This change would be the establishment at the Chicago Municipal Airport of centralized docks where all outgoing and incoming air freight shipments could be concentrated for more efficient handling. Under the present Chicago set-up there are no such docks, and consequently a truck that is dispatched to the airport to deliver or receive a shipment may be required to wait around for a long period, possibly up to several hours.

At the request of the writer, an executive of one of the largest Chicago trucking companies, which has had much experience in the handling of Chicago airport motor pickups and deliveries, outlined a five-point coordinating set-up for all the regulated airlines using the Chicago Municipal Airport which, in his opinion, would considerably speed and cheapen ground handling services for Chicago air shipping.

1. Down-town depot or small warehouse for assembly of small-lot air shipments. This should be at a convenient but uncongested location near the business center of the city, where small rush shipments could be delivered at any time

## What's so "alike" about these businesses?!



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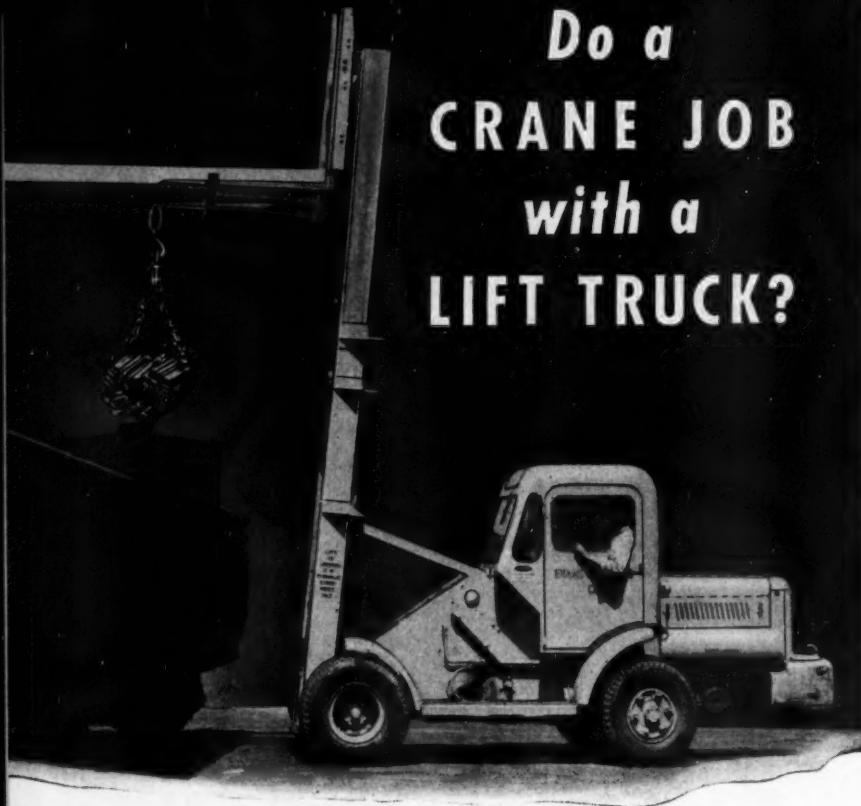
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1927—20TH YEAR OF GETTING THERE FIRST!—1947

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of day or night, for assembly and scheduled dispatch by express trucks to the airport.

2. Centralized receiving platform at Municipal Airport. This would be the official receiving point for consignments for all cargo airliners leaving the port. There would be convenient sorting space to concentrate the different plane cargo shipments.

3. Specialized plane loading and unloading vehicles. These naturally would include elevating and possibly moving-belt features, quickly adjustable to all plane stowing and unloading problems.

4. Central airport warehouse for outgoing freight, including sorting and truck-loading platforms. This would be served by equipment specially designed for unloading of cargo airliners, and not necessarily exactly similar to the special loading equipment.

5. Special vehicles for speedy and systematic Chicago pickups and delivery. These vehicles should be variable from light express trucks to those for bulk handling, and of course should include special insulated body jobs with automatic heating and cooling for handling perishables. Also, some of these trucks should have two-way radiophone equipment for the speeding of pickups.

It is estimated that Chicago eventually might need 40 to 50 such pickup and delivery units, scheduled for all important cargo airplane departures and arrivals. The Municipal Airport is located only 3½ miles from the geographical center of the city, but 10½ miles from the business center.

All parties concerned with Chicago air cargo shipping agree that there is immediate need for the speeding of the ground trucking service essential to air shipping.



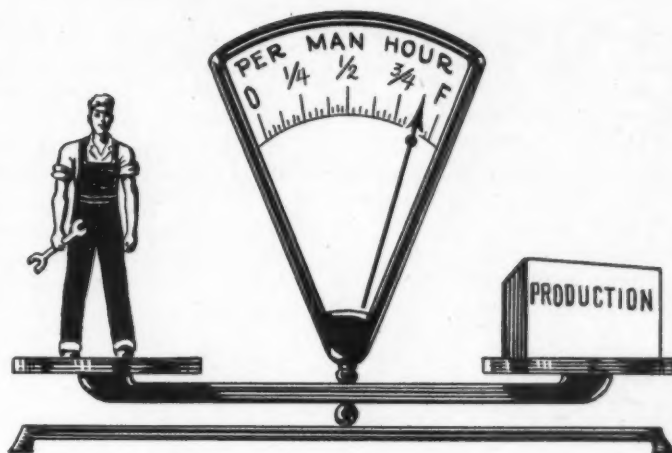
DISTRIBUTION AGE

# WHAT IS DISTRIBUTION COST?

Can the productivity of distribution be measured by following Fenton B. Turck's suggestion that we apply to distribution the same tool which has made production so efficient—productivity per man-hour? Mr. Merish says NO and points to 12 "outside" factors which he believes make the use of this tool impracticable.

By FRED MERISH

Special Correspondent



IN AN ADDRESS before the National Marketing Conference, Fenton B. Turek compared the relative productivity of production and distribution and suggested that standards of productivity per man-hour be applied to the functions of distribution as they have been applied to the functions of production. "The relative productivity of production and distribution is accurately assessed in the two figures of man-hour productivity: \$3.57 for production and \$2.17 for distribution," said Mr. Turek. "These figures show that a man engaged in distribution is only two-thirds as productive as a man engaged in straight production. In larger terms, it means that one-half of our entire industrial economy has only two-thirds the power of the other half."

The functions that comprise distribution service bear no cost relationship to the functions that comprise production and so it is difficult to see how the productivity per man-hour on production can be used to "yardstick" the productivity on distribution or measure its efficiency. It is axiomatic in accounting that fair comparison can be made only when the elements comprising the things compared are similar. In the spread between production cost and consumer price there are many factors that keep up the price, fac-

tors that have nothing to do with marketing and handling cost or productivity, factors that are not under the direct control of a management as are man-hour production costs, factors that have much to do with the fog that envelops distribution and the seeming inability of businessmen, otherwise capable cost-cutters, to reduce handling and marketing costs or increase distribution productivity and bring production to the consumer for the theoretical total of production cost plus handling and marketing cost plus fair profit.

Despite continual criticism, the so-called cost of distribution eludes the pruning shears of economists, cost accountants, research men and business analysts, because they seem to consider the spread between production cost and consumer price as the cost of distribution. But many of the price-boosting factors in this spread are as far removed from distribution cost as a silk purse from a sow's ear and cannot be reached by direct economies effected on handling and marketing operations. It may be that some of these factors are not barnacles but ballast to keep our economy on an even keel although we believe that distribution and the consumer's pocketbook would fare better without some of them. The purpose in dissecting this subject is to call attention to the make-up of the

spread in order to foster intelligent analysis.

Genuine distribution cost breaks down to these general classifications:

## Physical Distribution

- Company handling and transportation
- Company storage and warehousing
- Outside handling and transportation
- Outside storage and warehousing

## Marketing

- Advertising
- Selling
- Credits and Collections
- Financial Administration
- Wholesaling
- Retailing

The costs chargeable under these classifications are not wholly responsible for the dollar spread between production cost and consumer price. Other factors, not costs in the accounting concept, are partly responsible for this spread, no one knows to what monetary degree. There is ample evidence that the following 12 factors can inflate prices out of ratio to reasonable distribution cost and may stymie efforts to bring down prices despite increased productivity.

1. BUILDING CODES. Their purpose is to assure safety and sanitation, but in some instances they inflate the spread between producer costs and consumer prices

(Continued on Page 90)



## WHOSE HIGHWAYS ARE THEY?—(Continued from Page 39)

change which would be beneficial to their members. The for-hire carriers intervened in the Lenoir case, not because of any particular interest in that company's operations, but because they saw an opportunity to persuade the commission to adopt a new rule, which would be to their advantage.

*Interstate Commerce Commission v. Jamestown Sterling Corporation*, 64 Fed. Supp. 121, was an action brought by the commission to enjoin a shipper from continuing service believed to be for-hire. It was decided before the Lenoir application was heard, and probably caused the carriers to intervene in that proceeding. The court said that a shipper is engaged in motor transportation for hire when it adds the rate of a motor carrier to its factory price in computing the delivered price of its furniture hauled by its trucks. The rate for transportation in that case was that of the contract carrier which also served the shipper, and the amount charged was, therefore, said to be "identifiable" as compensation for transportation. The fact that the amounts added apparently did not include a profit was disregarded by the court. They apparently were less than cost. But they "were fixed" by the rate charged by the shipper's contract hauler, and that fact alone seems to have been sufficient to cause the court to enjoin the shipper from using his trucks in over-the-road transportation. The commission in its decisions has not gone so far.

The carrier organizations cited the Jamestown case with approval, but went farther in the Lenoir case. They urged the commission to find that where a shipper transports "products of which it is the owner or bailee, in furtherance of its commercial enterprise, (and) charges and receives compensation which exceeds its cost of engaging in the transportation, it . . . has improperly and in violation of the law entered the field of for-hire carriage." We say they went farther because in the Jamestown case the court said, "were these charges limited to the actual cost

of transportation a different question might be presented." The carriers would have the commission ascertain what the costs of the shipper were, and if the added amount for transportation exceeded the cost, he would be guilty of violating the law; but if the added amount was less, he would not be guilty, and his operations would be those of a private carrier.

The examiner of the commission rejected the contentions of the for-hire organizations and proposed that the commission continue to follow its decision in the Woitishek case, 42 MCC 193, and find that the corporation is a private carrier.

He said that there was no evidence "to indicate that any particular rate was charged. The added charge to the f.o.b. plant price was stated to be roughly equivalent to the common carrier rate. . . . The feature that motivates applicant's operation is service to its customers and the transportation is performed without regard to any profitable return for the cost of performing such transporta-

tion." The examiners concluded that the Lenoir Chair Co. was a private carrier because the record was sufficient "to establish that such operations are performed solely as an incident of, and are in furtherance of, a non-carrier business without any purpose of profit from the transportation as such." The motor carrier organizations ask the commission to reverse the examiner's recommendations and "to review the philosophy expressed" in the Woitishek case.

In the Woitishek case the commission carefully analyzed the facts presented, considered the definitions of the act, and reviewed its decisions. It apparently intended to lay down rules of law for guidance of its staff and others in future proceedings. It has been and is accepted as the last word of the commission on this subject.

The principle of the case is that the commission from all the facts in each case must determine the primary bona-fide business of the shipper. If the shipper is using some other business as a pretext and is hiding behind it to engage

(Continued on Page 76)

## TRANSPORTATION—(Continued from Page 53)

The rise of the motor carrier and trailer industries to their present position of importance in the transportation picture is bound to have a great effect on modern terminal design and operation. The motor carriers can prove a potent factor in eliminating the outmoded railroad spur. Highway transportation, when efficiently coordinated with railroad transportation, can effect tremendous economies in railroad operation through the medium of joint terminal operations. The illustration appearing in connection with this article is a drawing, in perspective, of the East Boston waterfront as I would like to see it in the near future.

Let us consider river terminals for a moment. The ideal river terminal, of course, must be situated at a point of constant, or non-varying water level. A permanent water level implies the existence

of suitable dams and locks in association with a controlled tributary river, such as the Tennessee. Such terminals should be flanked on either side by wide highways, railroad tracks and runways for aircraft (See Fig. 2) in order to make possible the swift transfer of cargo from one to another of our five forms of transportation.

There are 45 cities in the United States geographically endowed for terminal developments of this kind. These cities are situated on both salt and fresh water and are strategically disposed throughout the country. For years the railroads of the country have been talking of merging themselves into about 45 systems. If such a merger should be permitted, terminal developments of the kind I have just mentioned could be the home ports of a vast radial system which could function economically and efficiently to make more things

possible for more people through more efficient and economical distribution. Between these rival cities the competitive spirit, that is free enterprise, could flourish. Meanwhile, our newest and swiftest medium of transportation, air, is seeking to rid itself of unsound practices and wasteful terminal operations. The air cargo carriers have secured the services of Admiral Land, formerly chairman of the Maritime Comm., to act as arbiter in their efforts to eliminate uneconomic duplicate facilities, many of which serve only local and individual interests rather than those of the country as a whole. Another encouraging indication is the survey now being made under the sponsorship of New York State of the present woefully inadequate terminal facilities in the New York Harbor area. This study is being undertaken by the World Trade Corp., headed by Winthrop W. Aldrich, chairman of the board, Chase National Bank and chairman, International Chamber of Commerce, and backed by an influential directorate. I venture to predict that when recommendations are finally made they will encompass many of the basic problems I have attempted to outline in this series of articles and will suggest a similar solution.

(Next month: "Freight Rates—World Wide")

#### FLOOD CONTROL

PRESIDENT Truman recently appointed three committees to survey the food situation in Europe. But no systematized, nationwide effort is being made to prevent the needless destruction of crops by floods. Why isn't the President and the Congress backing Senator James E. Murray's demand for a survey of flood conditions in the Mississippi Valley. Food destroyed by floods benefits neither the starving millions in Europe nor the people in the United States. The program outlined in this series of articles provides for flood control. Adequate flood control guarantees food surpluses. We could use these surpluses to feed Europe without disturbing farm prices. Harold Stassen has suggested that we give away the Biblical tithe of our food supplies in order to secure world peace. This 10 percent, valued at five billion dollars, could be more than made up through adequate flood control and through the adoption of the overall transportation program outlined in this series of articles.—H.D.C.



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# HIGHWAY TRANSPORTATION

Approximately five million trucks are now in operation in the United States and the Dept. of Commerce estimates that 1.25 to 1.5 million will be produced in 1947 . . . Major problems include an adequate highway system and the proper allocation of its costs, the development of uniform laws and fair and efficient regulation.

By JOHN DEAN GAFFEY \*

Regional Economist  
U. S. Department of Commerce  
Los Angeles Office

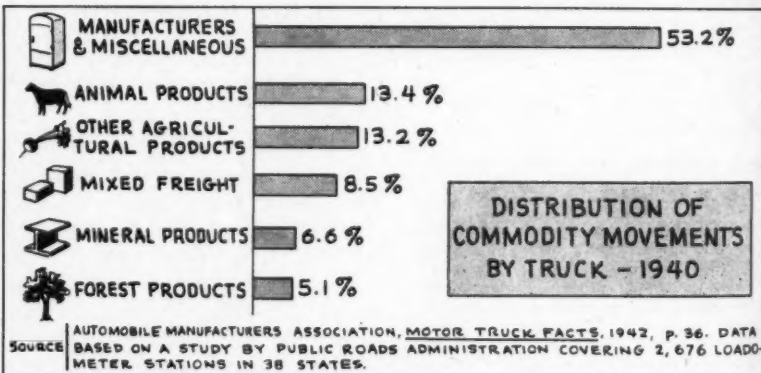







DR. JOHN DEAN GAFFEY is regional economist for the U. S. Department of Commerce at Los Angeles. A native of Iowa, he studied at Ohio State University and taught economics and business administration at Rensselaer Polytechnic Institute. After winning a series of Social Science Research Council Fellowships in national competition, he received his Ph.D. in Economics at Columbia University in 1940. He is author of a book on "The Productivity of Labor in the Rubber Tire Manufacturing Industry" and other technical works in the field of economics and industrial relations. His most recent work "A Post-War Business Review of the Pacific Southwest" has just been issued by the Los Angeles Office of the U. S. Department of Commerce. He was chief economist of the Southern California district of the Office of Price Administration, being primarily in charge of adjustments of maximum prices and the pricing of new products in the reconversion period. Previously in Washington he was head economist in the building materials and construction branch of the Office of Price Administration. He has held several other government posts.

**M**ORE THAN 25 million people on our six million farms and about seven million people living in 54 thousand small United States communities have no immediate access to transportation facilities other than the highways. These highways are among the more important economic ties which bind the people of New Mexico with those of New Hampshire, the residents of South Carolina with those of South Dakota. With nearly three million miles of rural roads, over 300 thousand miles of streets, and nearly as many motor vehicles as families in the United States, it is small wonder that the influence of the automobile is felt everywhere. Over 80 percent of these vehicles are passenger cars. Although the uses of cars are many, in 1942 (shortly after the beginning of tire and gasoline rationing) a survey by the Automobile Manufacturers' Assn. showed 45 percent of the mileage for recreational and social purposes, 32 percent for business trips, and 16 percent for commuting to and from work. In that same year a Michigan Highway Dept. Survey revealed that 75 percent of the war workers in that state came to and from work in their cars.

The west especially relies heavily upon automotive transportation for the movement of both persons and goods. This is a characteristic

\* The author is Regional Economist of the Los Angeles Office of the United States Dept. of Commerce. The views expressed in this article are purely personal and do not represent conclusions of the United States Dept. of Commerce or any other federal agency.



NUMBER OF BUSINESS FIRMS IN UNITED STATES DEVOTED TO PRODUCTION AND MAINTENANCE OF MOTOR VEHICLES 1/	
	AUTOMOBILE AND EQUIPMENT MANUFACTURERS.....1,600
	MOTOR VEHICLE RETAIL DEALERS.....47,700
	MOTOR VEHICLE PARTS AND ACCESSORY DEALERS.....21,700
	FILLING STATIONS.....214,100
	AUTOMOBILE REPAIR SHOPS.....81,600
	TOTAL.....365,700
	TOTAL NUMBER OF BUSINESS FIRMS IN U.S.....3,503,900
1/ SOURCE	ULMER, MELVILLE J., "THE POST-WAR BUSINESS POPULATION", U.S. DEPARTMENT OF COMMERCE, SURVEY OF CURRENT BUSINESS, JANUARY, 1947. DATA ARE FOR JUNE, 1946.



of the urban as well as the rural regions of the area. It is due both to the great distances involved and to the fact that much of the economic development of the west has come about during the period of the rapid rise of motor transport. The Los Angeles metropolitan area, largest in physical area and among the largest in population in the country, provides an excellent illustration of urban decentralization based to a large extent upon automotive transportation. In this area a blending of urban and rural living is developing in which a large urban population lives largely in individual houses surrounded by lawns and gardens. This pattern of living is heavily dependent upon highway transportation and has in turn created unusual opportunities for its development. Los Angeles County had more than 1,411,000 automobiles and trucks registered last year. Only six states, other than California, and few foreign countries had more vehicles on the road. This area contains some of the finest highways in the country. U. S. 99, "California's Main Street," between metropolitan Los Angeles and San Francisco Bay is one of the busiest truck routes in the world.

The dispersion of population, industry and trading centers over wider areas in and around our great cities has become a nationwide tendency. The movement was well under way prior to the war. It was interrupted by the concentration of war production in the larger producing units but the tendency toward decentralization has accelerated again since V-J Day. This trend has helped to bring the automotive and related industries to their present size and importance. In the United States about 366 thousand business enterprises, more than ten percent of the total number in the country, are devoted directly to the production and maintenance of motor vehicles. Most of the other 90 percent are to some extent dependent upon highway transport. In the movement of goods every other form of transportation depends to a greater or lesser degree upon

trucks for local hauls to and from the freight depot, dock or airport, and frequently for connecting hauls of greater distances. The railroads themselves (including the Railway Express Agency) had nearly 95 thousand trucks in use in 1941. Their store-door delivery service of miscellaneous merchandise used 56 thousand trucks, while terminal transfer service required another 15 thousand units.

Highway transport is paralleling developments on the railroads, thereby reflecting increasing competition between different forms of transportation. The net result is a tendency to provide better service at lower costs. Many trucks and truck-trailer units are specialized in design as refrigerated trucks for meats and other perishable foods, milk tankers, gasoline tankers, double-decker units for hauling new passenger cars, lumber trucks, etc. New specialized types are continually being developed to increase the efficiency of highway transportation.

Sometimes these trucks are the principal basis of the owner's business as in the case of "rolling stores" for groceries, "shops on wheels" operated by plumbers, sheet metal firms and concerns specializing in the repair of appliances and radios, trucks operated by insulation, roofing and siding contractors, and those engaged in other related activities. Likewise routes for the local delivery or sale of milk and other dairy products, bakery goods, vegetables, fruits, meats, frozen foods, ice cream, laundry, dry cleaning and miscellaneous parcels and merchandise use large number of trucks.

Variations of the principle of building a business around highway transportation are the "drive in" motion picture theaters, restaurants, and "motels." Some churches even operate on this basis. Food products in various stages of production are among the more important groups of commodities moved by trucks. According to the 1940 Census about one-fourth of all motor trucks in use were on farms. The majority of the movements of livestock, poultry and eggs from

farms to the principal city markets go by truck and nearly half of the fresh fruit and vegetables move to market in the same way. A large part of the movement of fruit and vegetables to canneries and frozen food processors also goes via the highways.

The Public Roads Administration estimated that in 1940, 76 percent of rural truck mileage and 54 percent of the truck ton-miles were by private carriers with the remainder being by for-hire trucks. The former group carried an average pay load of 2.37 tons while the latter averaged 5.34 tons.

The U. S. Dept. of Commerce reports that both local and intercity for-hire trucks carried more tonnage in 1946 than in 1945. Because of the close relation between the level of industrial production and the demand for trucking service, the entire trucking industry has benefitted from the increase in the output of goods which has occurred so far in 1947. The immediate future prospects of the trucking industry are likewise closely linked with the outlook for industrial production.

This Commerce Dept. study describes recent trends as follows:

"Intercity common and contract motor carriers of property suffered a slump in business for the first few months after the war's end as a result of reduced output of goods which move in large volume by truck."

Further on the same report states that "truck tonnage has reflected increases in production since the first part of 1946 and will continue to respond to changes in the level of industrial output. . . . A rise in local trucking business seems likely because of traffic arising from transfer of goods to and from the terminals of other carriers, and a larger volume of retail and wholesale deliveries as consumer goods become available in greater quantities."<sup>1</sup>

The commercial trucking companies, although relatively small in number, carry a disproportionate amount of the goods hauled on the highways. Although transcontinental truck routes are now common, the bulk of the commercial trucking business consists in the movement of manufactured products over intermediate dis-

(Continued on Page 91)

<sup>1</sup> Nelson, James C., "Transportation Outlook for 1947", *Domestic Commerce*, January, 1947.



# SPECIAL CONGRESSIONAL SESSION LIKELY

*President expected to call special Congressional session to deal with critical foreign situation . . . The Bulwinkle Bill, which has passed the Senate by a 60 to 27 vote, is likely to receive House endorsement, but to be vetoed by the President.*

By ARNOLD KRUCKMAN

*Washington Correspondent*

CONGRESS may recess, not adjourn, some time between July 26 and July 30. The new law apparently requires that it must take a rest after the end of July, no matter how short that rest period may be. Those who drafted the law naturally had in mind the killing heat of the Capitol. During the war a sizable number of men in the upper echelons of Government collapsed and died in the Capitol during the months of July and August, chiefly as the result of the terrible humidity and the high temperatures. Some parts of Washington actually lie below sea level. The area adjacent to the White House is mostly made land, recovered from a section which in earlier days had the significant name of Foggy Bottom. Driving work and this subtropical climate are not conducive to longevity, particularly for those who come from more temperate climates. Even the indigenous insensibly slow down because the human body seeks to adapt itself to its environment.

If the Congress simply recesses it may return any time its leaders determine there is need for a session. On the other hand, if it adjourns it cannot come back under

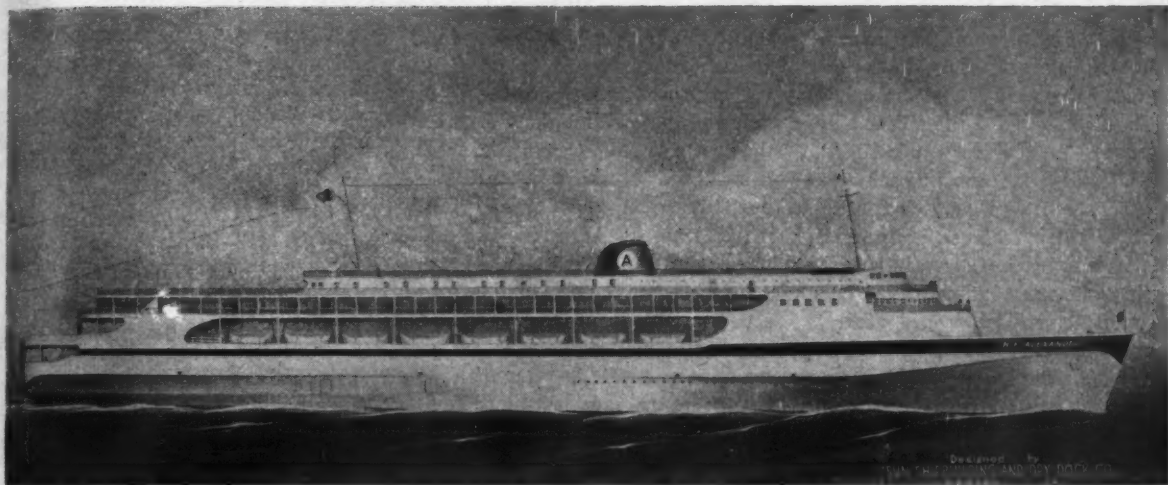
its own steam until next January, the official date for the next regular session. Under adjournment circumstances it could come back during the interim only if the President called a special session. In the event of a recess, each member must pay his own traveling expenses. On the other hand, when the President calls a special session the nation pays the bills. Mr. Truman is a very human person, and the chances are that he will call a special session, if he decides the session is necessary, to help members avoid an expense that really should not be placed on their shoulders.

There seems little doubt the special session will be called. The foreign situation increasingly requires special attention. The regular session will do well if it cleans up all the appropriation bills, half of which are still on the calendar at the end of June. There is little prospect that any important legislation will be enacted until next year, except possibly the Bulwinkle bill, and that which will be proposed at the potential special session. The hope is that the special session will present an opportunity for consideration and determination of the whole budget of problems involved in our for-

ign relations. If the majority of members have their way, no other subject will be discussed. Apparently the President has the same idea. If he calls the session he will undoubtedly limit the call to foreign affairs. The basis of consideration obviously will be the problems that are mushrooming over the globe as the result of the policies of the Russians. Many complicated problems are involved. These include the kind of tariff we should set up; to whom, and how, we shall give loans, credits, grants, gifts, and many types of aid and relief, in Europe, Asia, and Africa; how far should we go in order to cure the sick world, to set it aright so that global life may become relatively normal again. The Congress must determine how much of a good neighbor we should be in acting as physician, pharmacist, nurse, and dispenser of our presumably inexhaustible resources to those who have not.

There is practically no optimism in the Capital about the probability that the Russians will participate in the discussion of the Truman Doctrine, or the Marshall Plan, (virtually the same pro-

*(Continued on Page 92)*



Here is an artist's conception of the type of vessel to be used by the Alexander Steamship Co. in its proposed Long Beach-San Francisco service.

# Here Come the Water Wagons....

**When the Alexander plan is in operation, freight-laden trucks and trailers will roll on and off special water carriers which operate between the ports of San Francisco and Long Beach.**



By C. E. JACOBSON

Secretary

Maritime Shipping Division  
Transportation Department  
Los Angeles Chamber of Commerce

**A**MONG THE many experiments in transportation, which have swept across the industrial scene during the past two years, one in particular has caught the public fancy; yet, as in the case of many another innovation, the public fancy is backed with little real understanding of the nature of the venture. This particular experiment is in the nature of a hybrid operation broadly similar to that of the renowned Seatrain Lines in the run between New York and ports of the Gulf of Mexico. The major difference is that a facility is here being introduced to transport loaded trucks and trailers aboard vessels which would offer speed over a water route comparable to that which is presently possible over land routes between the same points.

One such service is already in operation between Norfolk and Baltimore; but perhaps the most sensational plunge into the new two-medium service is that proposed by H. F. Alexander and associates, scheduled to be operated between the ports of San Francisco and Long Beach, Cal., a distance of 364 nautical mi. against the present 401 mi. land route.

The Alexander proposal, already approved for certification by the California Public Utilities Commission, is a deluxe plan, which contemplates the building of two

563 ft. vessels of revolutionary design at a cost of about eight and a half million dollars each. The vessels proposed are planned to maintain an average speed of 25 knots, and will have stateroom accommodations for some 348 passengers and 64 truck drivers.

The real backbone of the liners' revenue-producing ability lies in their accommodations for freight-laden trucks and trailers. For these facilities there will be slightly in excess of a mile of linear parking space between decks, with securing couplings to hold the vehicles fast. The plan is to charge a rate of \$2.50 per linear ft. on the parking strip, \$75 per one-way trip for a 30-ft. trailer. The drivers would be dead-headed if accompanying their equipment.

The steamship operators propose to operate their own fleet of about ten tractors at each terminal with various fifth wheel attachments to fit the couplings of any trailer tendered for transport. The line would also maintain a crew of drivers at each port, expert in the manipulation in and out of vessels of loaded trucks and trailers.

Since the vessels are designed with two decks of six and eight lanes for the stowage of trucks and trailers, and one deck for automobile stowage, an arrangement must be made for the raising to



proper levels of the vehicles to be carried. For this purpose a large platform elevator has been designed for use at each terminal.

The high speed contemplated by the use of a twin screw, 36,000 hp. geared steam turbine in each vessel, is expected to provide for departure daily from each terminal at 6 P.M. with an arrival the following morning at 9 A.M. This overnight service would fairly equal the schedules of overnight motor carriers between Los Angeles and Long Beach areas on one hand and San Francisco on the other as they are run today.

There are, of course, a number of complex operational problems in sight, which will require the combined efforts of motor carrier traffic and operations men to overcome. There is the troublesome matter of marshalling loaded equipment in the terminal area. This will certainly require a smooth line-up arrangement and the orderly handling of equipment by the line's driver crew. Dispatching will have to be developed to an exact procedural level. With scientific scheduling, there is little doubt that an efficient operation can be instituted. It will be necessary to provide rapid on-the-spot mechanic service. Careful coupling and uncoupling of equipment will be necessary to avoid costly delays and damage to the loaded trucks and trailers and the cargoes carried. This will require the use of the most skilled operators obtainable at the terminals, for time is of the essence in such an operation, and the numbers of individual pieces of equipment are expected to be so great that the transfer operation must be completed in a matter of limited minutes. Ultimately, therefore, it must be acknowledged that the success of the entire operation hinges upon the skill of the handling crews at the terminals. The same qualification must apply to any similar operation wherever it may be projected.

Ambitious as the Alexander venture appears on the surface, it would depend neither entirely upon the cargo-laden motor carriers, which would be hauled at

flat length rates, nor entirely upon the passenger service, which would provide a measure of competition to the fast modern rail streamliners which roll nightly between the two populous California areas. Instead, it would be jointly dependent upon the large volume movements of both freight and passengers.

There is in the Alexander project a prophetic consideration of the heavy volumes of traffic now moving and expected to move between central and southern California. This is clearly evident in the great loaded capacities of the vessels. It is indicated that there will be room for 186 30-ft. trucks, trailers, or semi-trailers and an additional space for 46 passenger automobiles on the lower deck. Mr. Alexander anticipates a year-round load factor of about 70 per cent.

But the planned operation of H. F. Alexander is only one of many proposed methods of providing fast, economical motor transport in a "geared up" postwar distribution program. More and more it becomes apparent that no one medium of carriage can, under all conceivable circumstances, provide the utmost possible flexibility of time and economy between terminal points. The old theory of one carrier in rigid competition with another and the comparable "low-cost-carrier" theory is yielding ground steadily under pressure of the reach for efficiency in distribution. The evolution from the Seatrain operation to the Alexander proposal has by no means run its full course. Under the growing competitive forces now operating with the reappearance of intercoastal and coastwise steamer operations, the new east-bound mixture rule of the trans-continental railroads, the resurgence of the freight forwarder after the stimulus of wartime peak volumes, and with increased operating expenses and equipment costs, the motor carrier must, of course, adapt himself to newer, cheaper methods of transport if he would assure himself of black figure entries.

Speculation, following naturally

on the heels of any innovation as vast in scope as the proposed service from Long Beach to San Francisco, has opened a variety of questions. Among these is the question of how far the super-ferry might develop from the two-vessel beginning on the Pacific Coast. Already, Mr. Alexander has prospected the possibility of extending a similar service to that projected on the Pacific Coast between New York City and Albany. Others are considering the use of wartime craft built to accommodate army and navy vehicles in military operations at various ports. Naturally, the success of the original venture will determine future expansion of this type of operation.

The motor carriers expecting to be affected by the Long Beach-San Francisco service are asking among themselves if the way would be opened to local drayage companies at the terminal cities to accumulate truckloads and trailer loads at the two terminal areas for distribution by other drayage concerns at destination, thereby diverting traffic now carried by the major over-the-road firms to the terminal carriers. The question is substantial, of course, and in the long run, the answer will no doubt depend upon the economy of the carriers' operation within the terminal and outlying areas, since the cost of moving the loaded equipment from port to port would be constant, depending solely upon the length of the equipment used by the motor carriers. Certain it is, that so long as length alone is to determine the cost of carriage, the greatest benefit will accrue to the carriers which use equipment that will load high, as high as the height limits of the decks and ports will permit.

Another question concerns the tributary areas which would be served by the new service. The question again is one depending upon maximum economy, to be answered only by the action of the Interstate Commerce Commission in its decision upon the application of the steamship operators for an interstate permit, and the comparison of over-the-road costs to the expense of moving

(Continued on Page 95)

## OVER-THE-HIGHWAY HANDLING—(Continued from Page 44)

trucks and for truck maintenance and repair.

It has been pointed out time and again that the speed of loading and unloading a truck greatly increases its efficiency in the handling of pay loads. Nevertheless, we find truck operators, right within their own properties, still loading and unloading their own trucks manually. This shows up their operations and makes a high tariff for over-the-road haulage necessary. Too often insufficient margin with which to meet possible future competition is allowed.

Even if they are not concerned with competition, the truck operating companies should be interested in a larger margin of profit. This larger margin can best be realized through reducing their own handlings and by making present equipment more efficient. In addition, the trucking companies should be setting examples for their customers by developing methods and equipment that can serve as a pattern for their shippers. Such a policy would pro-

mote over-the-road haulage because it would demonstrate to the shipper how he could reduce his own costs. This would require some engineering and development work on the part of the trucking companies and a little cooperation and coordination with the materials handling equipment manufacturers. Representatives of both the carriers and the materials handling equipment manufacturers thus would be enabled to advise shippers relative to the many advantages to be derived from more efficient handling and the savings that could be effected in overall distribution costs.

Materials handling equipment manufacturers' representatives are handicapped in their efforts to sell shippers on better materials handling methods because the transportation companies will not give better rates for better handling. They will not equip their trucks and terminals with equipment which will permit easy unloading, nor are they willing to even consider the changes in their carriers

which might permit such systems to be installed over definite runs on definite commodities.

This is a short-sighted policy and one which has worked against the railroads and steamship companies in the past. doubtless, it will work against the over-the-road carriers unless they change their policy and take advantage of this opportunity to render better service to their customers.

The carriers should be interested in better service for selfish reasons. If loads can be handled on and off of their equipment more rapidly, more hauls can be made in shorter time and less expensive over-the-road equipment and operators will be required for the same tonnage. Such handling is not mere fancy as has been proven by some industrial plants in intra-plant shipments. Some instances, inter-plant shipments which require interstate hauling for distances between 50 miles and 350 miles have been greatly expedited. Trucks or semi-trailers have been equipped

(Continued on Page 79)



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# MORE PROFIT THROUGH CONTROLLED DISTRIBUTION

## 8. The Distribution Controller PART II

*Failure to accord staff activities their place results in inefficiency . . . The distribution controller has the facts and should make decisions.*

By R. M. COBURN  
Marketing Consultant

THE reluctance of many managements to face the implications of authoritative staff work and their consequent failure to realize its full benefit have been among the prime causes not only of distribution inefficiency but of the economic evils that stem from it. The example is recalled of one manufacturer who was forced into bankruptcy some years ago because of an inherent inability to understand properly the changing distribution trend in his industry. The company manufactured an unbranded and unadvertised staple article of men's clothing that had once been sold almost exclusively through individual haberdashers, both directly and by means of wholesalers. The president's personal experience had been limited largely to production and finance. He had little knowledge of distribution except what he had picked up here and there in the course of business. He left that responsibility to his sales manager, who was acknowledged to be one of the most successful

in the industry and who controlled the marketing policies of the company.

One of the young clerks in the sales office was made assistant to the sales manager with the title of Sales Analyst. After several years while the company's business increased on the crest of a wave of enlarged consumption but declined relatively to total industry sales, he made several discoveries:

1. There was a definite rising trend of sales of unbranded and unadvertised products (in this line) away from wholesale and retail haberdashers and toward department and syndicate stores.
2. The two largest companies in the industry, both of whose lines were branded and nationally advertised were gradually taking over the retail haberdashery trade.
3. The department and syndicate stores were limiting their buying more and more

to "promotional" merchandise to be used as leaders for special sales and it was becoming increasingly difficult for manufacturers to make any net profit at all on these.

These trends were discussed with the sales manager, whose sales, it must be remembered, were increasing actually. The relative decline was ignored as "just another mess of statistics." He had spent his entire business life with wholesale and retail haberdashers and was practically a stranger to the newer fields toward which his particular product was gravitating. He knew all of his customers and many of his retailers by their first names. He had sold them literally millions of dollars worth of goods, personally and through his sales force. Perhaps because he had always been successful in one field, perhaps because he was unwilling to learn a new one and practically a new method of distribution, he preferred to stay with his own trade even though it was out of



the question to try to advertise in competition with the two giants. The president of the company learned of the situation but allowed himself to be convinced that this was just one of the many ups and downs they had weathered in the past and would take care of again. When it really began to hurt it was too late. They had drifted too far and failed shortly afterwards.

This particular instance, which in substance is a familiar one, is cited for a specific reason. The company was well financed. It was ably managed so far as production was concerned. For many years the dollar volume had increased. There was apparently no need for research even in production because the product remained substantially the same every year and besides, engineering and research were not the custom in that industry up to that time. The reason this little history is interesting to marketing men is the failure to give a proper evaluation to the tiny staff function they had created as *assistant to the sales man-*

*ager!* The sales analyst, a very young man, had no prestige, and although he was intelligent enough to discover and interpret a basic industry trend, his position carried too little weight and authority to insure the acceptance of his conclusions and recommendations by top management.

Here then, in a microcosm, is one of the fundamental reasons why we have not been able to distribute as efficiently as we produce. It is quite obvious that in this instance the staff function was reduced—at a low level of authority—to nothing more than impotent suggestions, and that there was no medium by which the line and staff could communicate on the same level with each other. There was no objective and competent authority to decide whether the staff work was valid and to see that proper action was taken if the analyses indicated the need for definite changes in marketing policies. This organizational void is present in most concerns today. Some are successful in spite of it because of smart advertising and

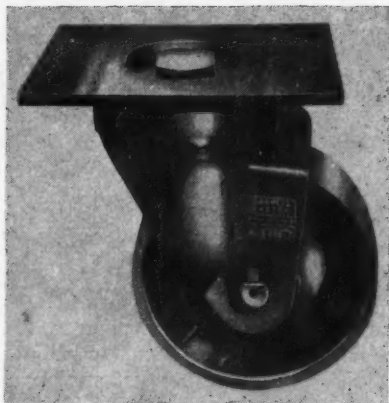
a hard driving sales department. Many get by with only a partial utilization of good research.

In the consideration of costs the integrating authority of the distribution controller will be especially useful. The entire expense of operating the department will, of course, appear as a single item in the master flexible budget which is the responsibility of the company's chief financial officer. The distribution budget from that point, however, will be the responsibility of the distribution cost controller, supervised by the distribution controller. It will then be broken down for every line and staff function and each in turn itemized again. While all figures will be in dollars, the estimates will also be expressed as percentages of the sales dollar (or gross profit dollar) for control purposes. And right there the fun begins. It happens constantly that at a certain level of volume, the sales department, for example, says it needs 10 percent for direct costs.

*(Continued on Page 97)*

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## CARGO SHIPS OF THE AIR—(Continued from Page 34)

operational possibilities for airships. The economic feasibility of these routes, of course, depends on the traffic potential. Of course, the large traffic potential between the United States and Europe makes this the most attractive route commercially for the airship as well as the airplane. The Germans, with the Hindenburg, demonstrated the possibility for maintaining regular operations over this route and it might well be anticipated that a lower-cost service, than that offered by the airplane, might find considerable demand on the trans-Atlantic routes.

According to estimates made by the Goodyear Aircraft Corp. for a hypothetical operation of a six-dirigible cargo fleet, each of ten million cu. ft. size, it would be possible to operate each ship for an average of 48 weeks during the year, using the remaining four weeks for overhaul. If operated on a 2500-mi. route each airship would

make an average of 96 round trips per year. If operated on a 3500-mi. route such as New York to London, each ship would make an average of 48 round trips annually. It is further estimated that as an exclusively cargo operation, approximately 180 thousand lb. of pay load could be carried per trip for the shorter route and 155 thousand for the longer. On a yearly basis this would result in 43.2 million ton-mi. and 26.04 million ton-mi. capacity respectively.

Since there has been no commercial airship experience in this country, estimates of cost are necessarily difficult to arrive at or evaluate. Such estimates have, however, been made by the Goodyear Aircraft Corp. and represent the informed judgements of the one interested group which, probably more than any other, has given attention to the development of commercial lighter-than-air operations. The cost of constructing

a ten million cu. ft. rigid dirigible has been placed at eight million dollars per ship if at least four to six ships are built. Assuming a fleet of six, the investment required for the power plants and other equipment, fixed facilities (including outbound terminals, but not overseas bases) and helium inflation would approximate 445 thousand dollars per ship, making a total initial investment of about 8.5 million dollars per ship. The annual costs and return on investment, estimated by Goodyear, for each ship operated in a cargo service are shown in Table I. It is also estimated that these costs would require rates of 7.7c. per ton-mi. in the 2500-mi. range, and 124c. for the 3500-mi. operation. These rates may be contrasted with present 20c. per ton-mi. rates for domestic airplane cargo and the foreseeable rate of from 70c. to 80c. per ton-mi. for long-distance overseas operations by airplanes.

## MECHANICAL HANDLING EXTRAS—(Continued from Page 37)

entirely upon floor level and is dependent in no way on the structure of the building itself. The only important feature is the floor. This fact means that the system can be used equally well indoors or outdoors as long as a good floor is provided.

Many companies have found after using large quantities of individually movable units such as floor trucks, that the saving in maintenance alone is sufficient to justify the use of the lift truck system. The only mechanical device in the lift truck system is the lift truck itself. Contrast this with the number of trucks otherwise needed to handle the loads. Assume if you will, fifty floor trucks, each truck is equipped with four wheels and corresponding bearings. This would mean that for 50 trucks 200 wheels (and bearings) have to be maintained. One lift truck with only four wheels and bearings might handle fifty skid platforms with even larger loads. It should also be borne in mind that it is justifiable where only four wheels and bearings are

necessary to use the very best material for the wheels, the very finest bearings for efficiency. It might, however, be impractical to do this where four wheels are required on every unit as the total expense of the finest bearings and wheels might be too great for the service performed.

It might be well again to point out that rubber can be used very successfully on the lift truck because only four rubber wheels are required whereas on the floor trucks 200 rubber wheels would be required. We realize, too, that for heavy loads much wider faced wheels must be used when rubber is the material than when metal. Also that rubber wheels are not satisfactory when materials remain on the wheels for long periods without being moved. With the lift truck system the material is stored on the skid platforms and the rubber wheels are only used when the loads are being moved from one point to another. A great advantage of the lift truck system is the fact that the loads are mounted on legs which pre-

vent shifting enroute.

How many trucks are required? Sufficient trucks should be available so that all loads required may be moved simultaneously if necessary. Man-power is thereby most effectively employed. The greater production speed thus effected will more than make up for the cost of the trucks. Labor costs today are so high it does not pay to have one operator stand idly by waiting for the use of a lift truck. A similar question is often asked: how many platforms are required? Consider your net total storage area for materials in process or in storage. The total area of platforms required should at least equal this net area. Remember scarcity of platforms cuts down efficiency. Think of skid platforms as a moving part of your floor. In other words, a piece of your floor which can be readily moved about to any point in the plant. Some warehouses require that the entire floor area with the exception of the piles, be entirely covered with skid platforms for efficiency.

their meaning being noted on the legend at the top of the board. The "today line" is attached vertically to the board and moved periodically from left to right in accordance with the time element in the procedure.

Mr. Wolff explained: "We divide the board in half. The left half shows us, at a glance, the miles a given vehicle has run, and the cost per mile. The right half is used entirely for the control of motor overhauls, preventive maintenance, and service of our many vehicles. By the same token, we are able to determine at a glance what vehicles are receiving or are to receive certain inspections, what garages they are in, etc. This phase of the control system has made it possible for us to cut down the percentage of vehicles shopped from 10 per cent to less than five. In view of this, a considerable saving has been made. Further, a daily review of the performance record of each vehicle as to miles

traveled and cost per mile has made it possible for us to check the vehicles that are exceeding our maximum operating cost allowance."

Thus, in making it possible to exert control in this kind of operation, a visual method such as this offers certain definite advantages. It provides at a glance a knowledge of all pertinent facts and figures, eliminates from executives' attention situations which are normal and spotlights the bad points, thereby immeasurably reducing the amount of time necessary to make an analyzed report.

It flashes the facts to all interested parties at one time, is flexible and can be adapted quickly to any problem. It eliminates or greatly reduces the amount of time necessary for the accumulation of usable facts from a routine paper record.

It is a well-known maxim that "in any kind of business operation, the greatest obstacles to effi-

ciency are bottlenecks that appear from nowhere and always develop at the wrong time." However, it is also true that bottlenecks do not just casually happen—they are the slow, constant growth of weak production or operating control which reflects the need for improvement. Students of postwar business controls generally agree that, in view of these facts, the remedy at hand is to have a stronger link of production or operation functions with the central control that gives a complete picture of a business—a graphic presentation of past, present and future operations, singly, combined and in proper sequence one to another.

As users of these systems have pointed out: When production or operation is under accurate control, there is far less waste of time and money, because men and resources are used to their fullest capacity, saving valuable man-hours and conserving vital executive time.

## MAINTENANCE ECONOMY

Starts in the Body Shop



Truck body maintenance requirements are a result of what happens in the course of loading and unloading, weaving through traffic over all kinds of pavement, making sudden starts and stops in transit.

Keeping this expense at a minimum is a result of what happens in the factory where the body is built.

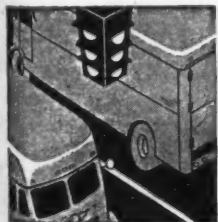
You find reasons for the maintenance economy of Gerstenslager Custom-built Bodies in reinforced understructure, windshield frame construction, post-and-rafter connectors, tail-gate design, and other improvements.

When overall operating costs are high it is more important than ever to keep maintenance expenditures low.

THE GERSTENSLAGER CO.

Wooster, Ohio

Established 1860



# GERSTENSLAGER

*custom-built*

## Van Bodies



## MOTOR CARRIER RATES—(Continued from Page 32)

that the motor carriers would achieve a much stronger position of competition with the rails, and also added favor with shipper traffic departments and regulatory bodies, if they would develop tariffs based in general on actual operating costs and made broad enough to apply to all routes and all conditions of shipping. Then all motor carriers should abide by such tariffs, with the few justified exceptions needed to cover peculiar circumstances.

However, this can only be achieved when rates are based on "motor carrier operations," including length of haul within which motor carriers can profitably operate, and upon other justified factors associated strictly with the motor carrier industry and not based on other modes of transportation. It is not distortion of the truth to say that the present motor tariff situation has been responsible for diverting a considerable amount of desirable traffic away from the motor carriers. In instances motor carriers have waited for many months, after a sale and delivery by the shipper has been consummated, before the carrier rendered his "balance due" bills. This has resulted in disruption of sale practices, and in a distasteful relationship for all concerned.

Closely related to the increasing demand by shippers that there be a more scientific truck rate structure are matters of trucking service and the availability thereof. It can be remembered when the motor carriers solicited traffic on the theory, perhaps correct, that here was something different . . . progress, speed and flexibility, smaller loads at less cost and reduced inventories.

Petitions recently filed with the ICC by motor carriers ask for basic changes in stop-in-transit provisions. Under present tariffs, it is provided that the shipper may request two stops in transit, whether over a single or joint line route. However, one of the motor freight bureaus has petitioned the ICC to limit this stop-in-transit practice to single-line traffic only; to not more than one stop in transit; and to routes not

in excess of 112½ per cent of the carriers shortest certified route between origin and destination.

This petition, if sustained by the ICC, would greatly hamper present distribution practices. And it would come at a time when industry is in need of the most efficient trucking service that is possible in small-shipments distribution. A large percentage of the retail dealers most in need of such service naturally will be located in the smaller business centers.

The point to be emphasized here is the same as that applicable to the basic rate structure. In other words, the motor truck industry should adopt a rate structure that fits the operation and establish special services at a cost commensurate with the service performed. Then if the motor carriers can prove a loss in performing a particular service, let them establish a rate or charge to cover, *but do not cancel it*. Business in general is built up on such services, and after being available for many years, its complete loss would have the effect of badly disrupting established business practices and requirements. If proved that the carrier costs are so high as to affect the possibility of the con-

tinuation of the service, then the shipper can look elsewhere for his transportation needs.

It is the opinion of the writer that the difference in operating services by the various modes of carriage requires and justifies cost differences. Otherwise we have duplication and someone must lose. Therefore, rates and services should be based on costs plus a reasonable profit. The shipping public should decide what transportation agency to use for a specific job.

The same condition applies to all services required of a common carrier. If a carrier is to perform its duty, the public interest demands that its availability must not be restricted. If its necessary costs in performing a particular service are more than the traffic can bear, the shipper has no alternative but to seek other transportation means, or to adjust his own situation accordingly.

Motor trucking is no longer an "infant industry." Shippers are dependent on the kind of transportation service that the highway carrier alone can perform. Hence it is decidedly in the public interest for shippers to cooperate in all common traffic matters; and to discuss desired improvements in the rates and general operating practices of motor carriers.

## ELECTRIC HANDLING—(Continued from Page 30)

of cargo are taken away. The tailgate is raised slightly above the floor of the truck and the empty steel plate, which is in the way of the other plates still containing cargo, and which weighs 400 lb. and is too heavy and awkward to handle manually, is slid into a special rack built on the under side of the tailgate. New skids are positioned on the tailgate and the entire process is repeated.

When the last plate of cargo has been removed, the steel plates are slid back into the truck, locked into place, the sheaves removed from the tailgate, and the tailgate raised and locked into position. The drivers are ready to leave the platform a half-hour after backing into position.

At present Mr. Pride has one truck thus outfitted, and is using only the five 5-ft. plates. Other dimensioned plates to fit certain needs can be made when steel becomes easier to obtain. The trailer can handle pallets up to 44 in. since the truck can be only 96 in. wide and six inches are used for sides and tailgate.

Mr. Pride says that plant prejudice and reluctance to change established procedures prevent the widest use of the device. If shippers would place metal plates on their pallets, under their cargos, thus enabling the truckmen both to load and unload electrically, he could double the present number of trips his trucks make.

## REFRIGERATED TRUCKS—(Continued from Page 46)

parts of the northwest and California by means of aluminum pre-cooled motor trucks that are refrigerated automatically with Thermo King cooling machines, crushed ice or dry ice.

"We obtain our crabs from Astoria and Newport, Oregon, and ship them in aluminum motor freight trucks that are pre-cooled and iced.

"In order to handle and distribute our fish efficiently and with as little loss as possible, we aim to install all of the latest machinery. In our canneries and in our plants at Everett, Washington, and Vancouver, we use fork lift trucks. We also use elevated cannery belts, conveyors and mechanized hoists in our Vancouver plant, and pallets that save us time in handling our products."

The fresh chilled halibut and other fish of the New England Fish Co. are quick frozen, stored and shipped in accordance with the most modern commercial practices. Halibut is rapidly frozen in as low temperature freezers as are avail-

able. The freezers used are large insulated rooms containing tiers of pipes laid horizontally so as to form shelves. They take up heat from the fish resting upon sheets of galvanized iron covering these pipes. When the freezing is completed, the individual fish are re-

moved to a low temperature room for glazing.

While the fish are at a temperature of 35 deg. to 45 deg. below zero they are submerged in water. A heavy film of ice or glaze forms over them completely. Then they are removed and sent to storage. The storage rooms are maintained at zero or lower in order to minimize changes in the flesh of fish during storage. Later when the halibut are to be marketed, they are removed from storage, trade marks attached, reglazed, carefully wrapped in white paper and packed in boxes lined with white paper. Shipment to distributing warehouses is made in refrigerated chambers aboard steamers or in refrigerated cars. At the distributing warehouse, the fish are again kept in low temperature rooms until delivered to dealers.

This company and others using the modern techniques of food delivery in refrigerated cars and motor trucks have gone a long way toward solving their distribution problems.

### Carriers Paying for Roads

Motor carriers are more than paying for the use of the country's highways, figures of the National Highway Users Conference indicate. Arthur C. Butler, director of the conference, stated that special state highway user taxes paid for highway purposes in 1946 reached a new high of nearly \$1,616,000,000, not including federal excise taxes. With total expenditures of all levels of government for construction, maintenance and administration on all roads and streets amounting to \$1,603,000,000, motor vehicle operators state taxes alone more than paid for the nation's roads.

In addition to these taxes, motor fuel tax revenues paid to the states were at an all-time high, amounting to \$1,064,681,000, figures of the public roads administration show, and state motor vehicle license and registration fees totaled \$502,780,000, while taxes and fees on motor carriers came to \$30,538,000, a 12.1 percent increase over 1945.



Fig. 751  
4-Pipe Stakes



Fig. 772  
1 Rack



Fig. 757  
2-Bar Handles



Fig. 753  
4-Wooden Stakes



Fig. 760  
1-Bar Handle



Fig. 762  
2-Pipe Stakes

# HALLOWELL

Built to take years of gruelling punishment with minimum maintenance and repair. Sturdy, welded steel construction insures against weak, loose joints and wobbly trucks. Types and styles available for every service—and they move and maneuver so easily on free-rolling wheels and casters, that the heaviest load can be handled with very little effort. Write for descriptive literature. "Unbrako" and "Hallowell" Products are sold entirely through Industrial Distributors.

OVER 44 YEARS IN BUSINESS

## TRUCKS of STEEL



Fig. 769  
Pat. Applied for

# STANDARD PRESSED STEEL CO.

JENKINTOWN, PENNA., BOX 560 • BRANCHES: BOSTON • CHICAGO • DETROIT • INDIANAPOLIS • ST. LOUIS • SAN FRANCISCO

# DISTRIBUTION'S

## CHANGING CHANNELS

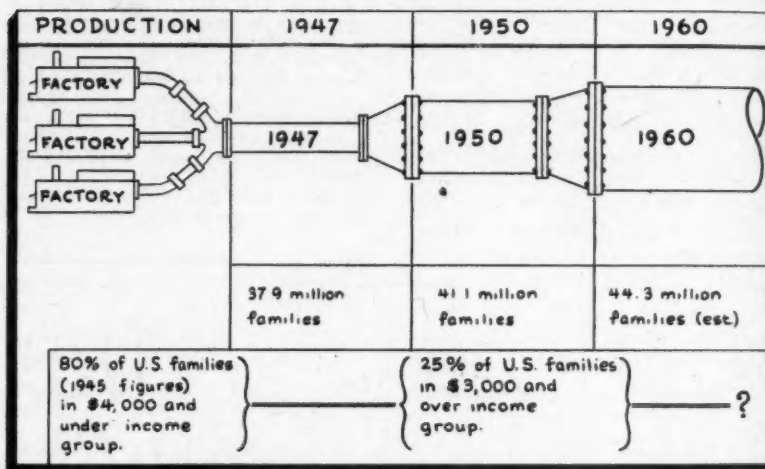


By **VICTOR LEBOW**  
General Sales Manager  
Chester H. Roth Co., Inc.

**T**HE goods and services we produce are flowing through pipelines which are undergoing a process of violent change. Victor Lebow, General Sales Manager, Chester H. Roth Co., Inc., told members of the American Marketing Association meeting in New York June 11-13. He likened the channels of distribution to a tube through which a liquid is forced at an increasing pressure, causing turbulences and dangerous pressures. One aspect of the changing picture is that commodities are being sold today where they were not handled before, said Mr. Lebow, pointing out the increasing uses of the vending machine, and mentioning the varied sales in drug stores, auto accessory stores, filling stations, etc., of commodities outside their usual line. The U. S. Chamber of Commerce shows a 30 percent increase in retail, wholesale and service establishments over 1943, but against this figure must be balanced the fact that in the first 39 years of this century, out of 16 million new businesses, 14 million failed. The small distributor, useful in wartime and a lush market, will fail in a tough market.

Another phase of the distribution picture is the combining of

Goods and services flowing through distribution pipelines are undergoing violent changes . . . Increasing sale of "outside regular line" merchandise through formerly non-competitive mediums and the upswing in centralized buying are posing serious problems for small independent distributors.



several outlets into a single buying organization, such as Affiliated Retailers, Inc., the Arkwright Co., Gamble-Skogmo, etc. The resulting organization has tremendous buying power and can compete with Sears, Roebuck and like firms. The trend toward self-service, already well-established in grocery stores, and the widening of price ranges, such as Marshall Field's Budget Floor and Kresge's and Grant's quality merchandise, are other parts of the picture which must not be lost sight of. The squeeze being put on the wholesaler is forcing him to accommodate himself to the patterns and needs of our present system, or lose out on lucrative trade.

But the mere listing of changes in the scene is worthless without

inquiring into the reasons for them, said Mr. Lebow, who explained that the changes rested on deep forces in our economic life: the growth of monopoly and monopolistic practices, increased productivity in industry and agriculture, and uneven distribution of purchasing power.

Mass production begets mass distribution or the desire for it, and mass distribution has made the "captive" distributor, the filling station operator, the automobile agency, where policies are dictated by the producer. The increasing costs of advertising and the resultant fewer firms doing more of the business, tend to limit the independence of even the largest retailers. This in turn leads to the

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# Sales Promotion Through Associations



**Educational and technical exhibits by industrial and mercantile associations present new opportunities for creating good will and developing sales.**

By SELMA WINEMAN and  
HAVILAND F. REVES

*Detroit Correspondents*

**A** NEW and needed function for manufacturing and trade associations was pioneered by the Detroit Paint, Varnish and Lacquer Assn. in its group exhibit of the local paint industry at the Detroit Builder's Show last year.

Unfortunately neither the paint group nor any other group saw fit to follow up on the obvious advantage of this type of exhibit in this year's builder's show and several of the individual exhibitors commented on the fact that the show as a whole showed a deterioration as a result.

In the past, business associations largely have limited themselves to setting standards of ethics for their industries and to meeting common problems, particularly in the legislative field. On a national level associations sponsor group product advertising programs along the "use more products" idea.

For the first time perhaps in the paint industry and for the first time in the history of the Detroit

Builder's Show, the local association took advantage of the exhibition's public drawing power of over 100,000 to put on a unified exhibit of paint in terms of its history, the highly technical controls used in the laboratories, and the latest methods of application.

Obviously, this type of educational exhibit will not result in direct sales, and its expense is so large that only a few of the largest companies could ever hope to offer it individually as a good will gesture. Yet it is ideal as an association function and opens new vistas of action for associations in the future.

The overall aim of such action on the part of an association would be two-fold; to offer a public service by giving an educational background on the industry and to sell a need for a type of product or service. This differs from the individual company's advertising function of offering competitive claims on the merits of an individual trademark with an aim for direct sales for its particular

company.

The era of high pressure salesmanship is generally conceded to be over. This is not because sales groups and salesmen in general have suddenly become highly ethical, but rather for the purely practical reason that it is no longer effective.

Subjected to high pressure techniques, the average person at present generally tends to become resistant rather than easily sold. The general trend of sales thought at present is that a program is required to sell the public or the individual on a need for a type of product. In this area the association can be most effective in presenting educational information pointing to the need for paints, house insulation, more efficient cleaning devices, etc.

Such a group program would have a double advantage. The high cost of an educational program would be shared among those who ultimately would benefit from it.

*(Continued on Page 81)*

in transportation for a profit, he is a carrier for-hire, but if engagement in the professed business is bona-fide and the transportation is incidental to it, even if a profit is made from it, he is a private carrier. The commission refused in that case to use any one test as conclusive. It was urged to find there, as it is urged in the Lenoir case, that where for transportation the shipper adds more to his factory or mill price than his cost, he engaged in transportation for profit. But the commission said it was necessary to show something more . . . that the transportation is "supplied with a purpose to profit from the transportation operation as such." The commission said if the private carrier definition is to be given a meaning different from the definitions of common and contract carriers, the private carrier definition must be read as meaning transportation "for the purpose of sale, lease, rent or bailment, by the transporter, or in the furtherance of any commercial enterprise of the transporter other than transportation for compensation." In the application of such a definition an examination of each and all the facts is necessary which may disclose the purpose of the transportation and the nature of the enterprise in which the transporter is engaged.

But it is far easier to write a definition or define a principle than to apply it. All the facts will not weigh evenly, and in deciding a case the commission is certain to give one or two facts more weight than others. Decisions are difficult to forecast, and those who attempt it indulge in pure guesswork. The commission and the courts have reached different conclusions in applying the same principles. Certainly, when it has investigated the activities of a private shipper and has instituted proceedings in the courts to enjoin him from continuing to use his trucks as a for-hire carrier, there is a reasonable assumption that it has considered all the facts and from them has concluded that the carrier's operations are unlawful after meas-

uring them by the principles of the *Woitishek* case. Yet when it sought to restrain a shipper after that case was decided, a federal court applied the principles of the *Woitishek* case, stamped approval upon the operations of the shipper and denied the commission's request for an injunction.

In the *Tank Car Oil Corp. Case*, 151 Fed. (2nd) 834, decided Nov. 9, 1945, the corporation was found to be an operator of owned and leased filling stations; also a wholesaler of petroleum products. As a wholesaler, it transported petroleum products from pipe line stations and other sources direct to the consignees. It had title and possession of the products only while they were on its trucks. The court declined to follow its decision in *Stickle v. ICC*, 128 Fed. (2nd) 155, in which it said that the applicant, a lumber dealer, was a carrier for-hire. The trucker in that case had a relatively small investment in his professed business, and his yards and warehouses were used sparingly in storing or warehousing of lumber. The lumber business was said to be a pretext to cover his transportation operations. In transportation equipment, the shipper had a substantial investment, and employed it in transporting lumber direct from railroad sidings to the buyers at delivered prices which included compensation for transportation. He had title in most of the lumber only while it was on the trucks. The court enjoined the shipper from continuing such transportation.

In the *Tank Car Oil Corp. Case*, the same court did not consider temporary ownership while the goods are on the owners truck as indicating a pretext to avoid regulation; to the contrary, it commented upon the fact that when the corporation hauled its own products it assumed greater risks than a carrier, since in case of loss through fire or act of God, it would not only lose the transportation charges or costs, but the value of the products as well. It found that trucks used in petroleum transportation were employed dif-

ferently from trucks in the coal and lumber business. It said,

" . . . Coal, for instance, may be transported and delivered in numerous types of vehicles, and so may lumber, and the delivery of those commodities to the customer by the seller is not a mandatory ingredient of a sale. Many of the purchasers of coal and lumber have their own, or other, trucks available to them by which to secure delivery of those commodities, but petroleum products are customarily handled in tank trucks having appropriate facilities such as pump, hose connection, and the like, for the efficient and safe handling of such a volatile commodity, and every one knows that it is the general custom for the wholesale dealer in petroleum products to make delivery at the station and in the tanks of the retailer. Consequently the delivery of petroleum products sold at wholesale to the retailer is an essential and integral part of the business of a wholesaler of such commodities. There are other available alternatives for the delivery of lumber or coal."

Thus, from other facts, the court was persuaded that the applicant was a bona fide dealer in petroleum and the fact that petroleum was owned only while in the tank trucks did not indicate any lack of good faith to the court because the use of such trucks, it said, was required in the petroleum business; while in the lumber dealer's case, ownership of lumber only while it was on the trucks, appeared to be persuasive that the dealer was a trucker. Thus different persons may draw different conclusions from the same facts. But the person whose good faith in the employment of his trucks is under question is afforded a better opportunity to defend his actions if all the facts are considered, than he would be if consideration by the commission or the court is limited to one or two

facts. The certified operators should not suffer if they also have the freedom to choose from all the facts those which show that the truck-operator is actually a transporter for-hire.

To use costs only, as has been suggested by the carrier organizations, as a measure to determine the status of the operator would certainly not improve the situation. Injustices would result unless all costs are determined in the same manner. Since high costs would tend to prove that the operator is not a for-hire operator, he would be tempted to inflate costs. Costs to each destination might be necessary. Between points where his costs of operation are high, the shipper by private truck might be a carrier-for-hire, but between other points where his costs are lower, he might be a for-hire carrier. Would the accuracy of his cost figures be measured by a lower rail or motor rate? An excessive rail or motor rate would not be a fair comparative. The truck operations of a careful and efficient person might be subject to regulation, while those of a careless and slipshod operator (which might be improved by regulation) would go free. The carrier organizations, if they seek a rule of thumb, have not chosen a substitute which would be simple—certainly it would be a standard more complex and fertile in injustice than the principle in the Woitishek case.

Shippers normally use their own trucks because they can give better service than that afforded by for-hire trucks. The employees of private truckers may know better how to handle the commodity transported. The equipment may be controlled and directed by the owner, and may be placed where it is most needed when service is required. Services of competitors, if equivalent service is to be supplied the buyers, may force the shipper to use his own trucks. If he cannot meet such competition unless he uses his own trucks and cannot secure satisfactory service from the for-hire carriers, he should be free to meet it as a private carrier.

But generally when a shipper employs his trucks where profit

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### **William A. Barber, of Chilton Passes**

William A. Barber, 63, Treasurer, Chilton Co., Philadelphia, Pa., publishers of **DISTRIBUTION AGE** and other business papers, died at his home at Bala-Cynwyd, Pa., July 20th.

Mr. Barber, a native of Onarga, Ill., was formerly a professor of economics at New York University from which he was a graduate. He was an executive of Lee, Higginson Corp., New York City, dealers in securities, before joining the Chilton Co. in 1932.

Mrs. Barber and two daughters, Mrs. Huntington B. Crouse and Mrs. Isabelle Githler, survive.

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from transportation, not the promotion of a non-carrier business, is the primary consideration, he approaches a field of transportation in which he does not belong, and for which permission is required. A shipper whose primary investment is in transportation facilities and whose profits are from it may be in the transportation business. If his capital is in trucks and he buys at one end of the haul and sells at the other, or if his trucks are employed to haul into his plant goods purchased f.o.b. plant, and the suppliers receive an allowance for transportation he would seem to be a for-hire carrier. Whether or not any such facts may make him a carrier for hire may be fully explored by following the principle in the Woitishek case. The fact that the courts or the commission may appear in some cases to decide wrongly, does not invalidate the principle that good faith should be determined from all the facts. A rule requiring consideration of only one fact, or group of facts, such as costs, for example, would probably result in greater injustice.

So far, it seems clear, no better rule than that in the Woitishek case has been offered. If that rule is inadequate and does not properly reflect what Congress had in

mind in writing the definitions in the Interstate Commerce Act, they should be rewritten or clarified by Congress.

The private carrier and the common and contract carriers all have their place in the transportation field. The private carrier cannot fill the field occupied by the for-hire carriers. And the for-hire carriers should not attempt to occupy completely the place of the private carriers, and probably could not do so adequately or generally if they so attempted. Where they can furnish equal or better service at equal or lower costs, they should be given the work. It is natural that the for-hire carrier is concerned in the movement of tonnage which he believes should be transported by him or that he should be aggrieved if he is deprived of it when it moves in the shipper's trucks. Shippers may, therefore, expect that their use of trucks will be subject to scrutiny. Should the use be subject to attack, the principles followed by the commission seem to afford adequate protection and to assure a fair decision as certain as is humanly possible. They should be concerned with attempts to break down those principles and to apply others which may have the effect of depriving them of the legitimate use of their own trucks on the highways.

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**A NEW FACTORY BRANCH . . .** A. L. Struble, vice president and director of sales, The Trailmobile Co., has announced the opening of a new factory branch located at Hollidaysburg just outside of Altoona, Pa., which will be the company's sales headquarters for the surrounding area, and is equipped with modern service facilities for repairing all types of truck-trailers.

W. G. McManus has been promoted to manager, in charge of the new branch.

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**A NEW EDITOR . . .** Rufus G. King, Jr. has been appointed International Editor of **WORLD GUIDE**, Standard Air Cargo Shipping Reference. The **WORLD GUIDE**, according to the pre-publication announcement, will consist of both Domestic and International Editions, each containing detailed information regarding air cargo rates, services, equipment data, etc. The International Edition will be Mr. King's responsibility. He will also manage the newly opened Washington, D. C., office of the **WORLD GUIDE**.

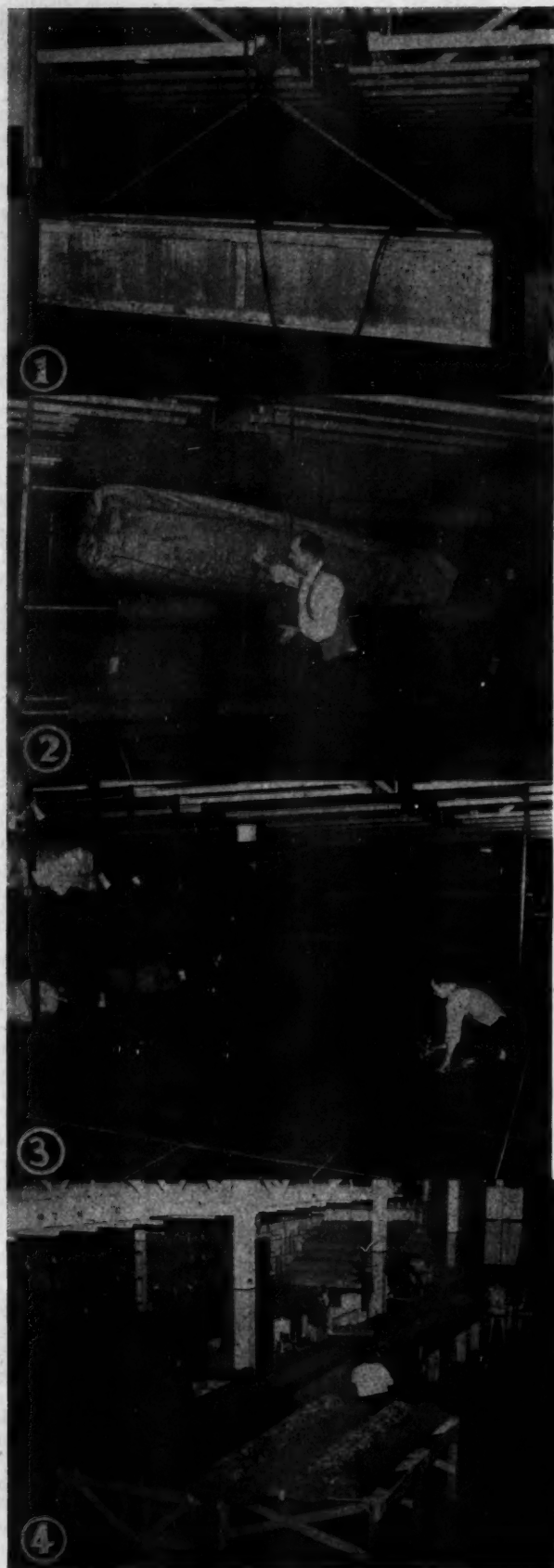


# How Sears Handles Rugs

The handling of loaded carpet boxes and packaged rugs presents many obvious handling difficulties. In the May issue of *DISTRIBUTION AGE*, John E. Quaille discussed how the Magee Carpet Co., handled loaded 15-ft. carpet boxes, weighing nearly a half-ton, into box cars. The accompanying illustrations depict another company's solution of the problem.

At the new Seattle warehouse of Sears, Roebuck and Co., a program to expedite and improve shipping room methods has been put into effect. Illustrations show how rugs are handled efficiently and economically.

Monorail conveyor (Fig. 1) is used to move crated rugs from freight cars to storage area. Crating is removed, and rug is placed in storage rack. (Fig. 2). When order comes in, rack is pulled out and rug is unrolled and cut to customer's specifications with electric machine. (Fig. 3). Cranking device shown at extreme right of Fig. 3 unrolls and rolls rug. White lines painted on floor make it possible for rug to be cut to exact measurements. Rug is placed on roller conveyor (Fig. 4). Workers add seams and bindings as it rolls along. It then is inspected, cleaned and placed on a special table (Fig. 5) where it is wrapped and made ready for shipment to the customer.—WARREN E. CRANE.



## HIGHWAY HANDLING

(Continued from Page 67)

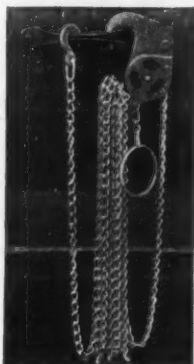
with proper materials handling accessories that have reduced loading and unloading time and increased the number of payloads handled to give better service between the plants by shortening the time required from the end of one manufacturing line to the other. In addition, considerable savings have been effected within the manufacturing plant and the plant being supplied by reducing the number of handlings at both ends of the haul. Operations prior to shipment and operations performed after receipt of material at the plant where it is to be used have also benefited.

These savings have justified the purchase of a considerable amount of materials handling equipment and accessories. This equipment has not only simplified operations but has made for better working conditions. There are a number of over-the-road motor companies that could obtain contracts for a year or more if they would develop better handling methods and show shippers how their systems would reduce overall costs.

The writer has been in touch with a number of shippers who have stated that when they have suggested certain plans of this type they have met with resistance on the part of the haulage companies or with a lack of interest and, since the shipper has not wanted to set up his own over-the-road transportation facilities, he has foregone possible savings which could have been effected within his own plant by using a more modern method of handling.

With wartime restrictions removed there is need for a resurgence of the progress formerly evidenced in development of new ideas in over-the-road haulage. Manufacturers of over-the-road equipment, such as tractors, trailers, motor trucks, special bodies, elevating end-gates, etc., and manufacturers of materials handling equipment, monorails, light duty conveyors, fork trucks and pallets, and similar equipment, should work together for the development of better and cheaper transportation which in turn will lead to lower distribution costs.

## WORLD'S EASIEST WAY TO OPEN ANY BOX CAR DOOR MONARCH ONE MAN CAR DOOR OPENER



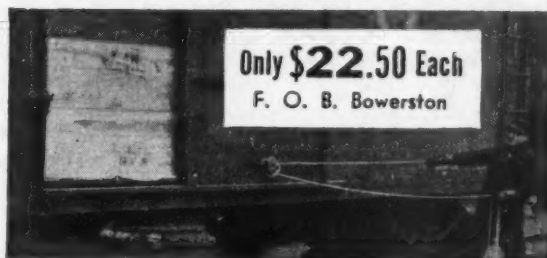
One man can open the most binding balky box car door with the Monarch Car Door Opener. Get greater safety . . . speed loading and unloading schedules . . . order an ample supply to fill your needs today!

\* No strained muscles. No slips or falls. No broken arms, legs or mashed fingers. No fatalities. No time wasted. No "gangs" needed. No time loss.

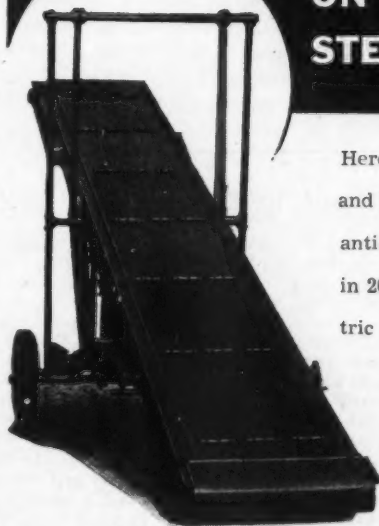
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or cement, for example, the manufacturer must remember that his package must be sufficiently durable to serve as a shipping unit as well. Production line canning or bottling inevitably continues into the mechanical casing for shipment.

In comparing mechanical with manual packing, it should be remembered that the vast number of operations involved in preparing cargo for shipment often are done manually because of precedence or habit. It is possible in such cases that a progressive, forward-looking study might indicate where mechanization would improve overall results, step-up production, release labor for other operations and lower costs generally. For example, many plants have an operation which involves moving the filled wholesale size containers (which also serve as shipping units) by roller conveyance to personnel who glue and secure the closure of each box. An automatic operation would in many instances save enough to pay for itself within a year or two, speed up output, insure uniform excellence and eliminate human errors. Simply because the preparation of shipments always has been a manual process is not sufficient reason for top management to overlook the possible advantages to be derived from mechanically handling the final shipping container. If an improved shipping record, a better impression upon

the trade and lower costs result, certainly the automatic equipment should be extended to as many steps in the shipping phase as possible.

As we move into the field of wooden containers, we find many possibilities for mechanized improvements in fabricating boxes. Perhaps not one box-making department out of ten in industry measures up to the ideal set-up in respect to the quantity of boxes it is expected to produce. Among the commercial box-making concerns which supply industry with standard boxes to specification, the picture is a little better. Still, a survey here would show that only about a third have equipment that would rate as an A-1 set-up. Another third might be shown to have a fair amount of basic wood-working machinery but which was not specifically designed for automatic box manufacturing. The final third probably would be revealed as fashioning each box in the laborious methods of several generations past.

The relative merits of the manually made and machine-made box is revealed by a comparative inspection. In spite of the occasional artisan who can be depended upon to manufacture boxes of consistent excellence at a fairly rapid rate, and in spite of the occasional machine job that is sub-standard, the quality of boxes which have had the benefit of automatic nailing is far superior to those nailed

by hand. This superiority is greater as the extent of the automatic feature increases. With the heads of a box alone produced by machine, a great deal of the heartache and danger in box-making is avoided. If the entire box is mechanically fabricated so much the better. If, in addition to automatic processing of the box, the lumber is dressed, planed, sawed and, where prescribed, specially jointed, as an integral part of the box-making operation, one can expect the ultimate in wooden containers.

The machine, once set, will always nail with proper spacing. It will deliver, without variance, the inside "clinch" as desired. It will drive every nail with exactly the correct pressure to sink the head to the degree required. On the other hand, manually-assembled boxes will show occasional "skips" of spots where an extra nail is advisable, or will show too many nails in places. Too many nails invite split boards and a generally weakened container. Sometimes, the box-maker is laggard in observing and clinching every inside protruding nail point. Again, a person driving box nails all day long will here and there miss giving the final drive which insures maximum holding power.

While experience favors the shipping package which more-or-less is mechanically produced, we must remember that automatic packaging is not invariably good just because it is automatic. It too, can have its pitfalls. If the weight specification for the box, or the inner wrap and packaging, or the closure, nailing, gluing, taping or strapping is unequal to the weight and type of contents, then the shipping unit is destined to fail in storage or transportation, whether automatically or manually prepared.

What is true, however, is that the automatic packaging machine industry is prepared constantly to render a service of research, advice and installation for the manufacturer or processor, with a view to evolving a unit of conveyance that will most nearly withstand all the hazards of shipment.

### Hijacking Boosts Insurance Rates

**H**IJACKING of valuable truck cargoes, already a huge item of loss to shippers, reached a new peak this past year and is still on the increase. Losses estimated at \$25 million were suffered in 1946, with textiles, clothing, liquor and food heading the list. The average loss per theft was \$8,340, up ten percent over 1945. New York City led in losses, with New England a surprise second, owing to the great textile traffic there. The greatly increased number of losses in this field is naturally reflected in insurance rates, and carriers are finding it difficult to obtain sufficient coverage from insurance companies. Underwriters are reluctant to issue reinsurance and basic coverage, and are changing some companies from full to limited coverage. Some firms specializing in valuable cargoes pay as much as four percent of their gross revenue to obtain insurance. Although 1945 was a good year for inland marine insurance in general, the truck cargo category was very bad, and insurance firms are demanding loss prevention measures on the assured's vehicle.

As a result of the increase in hijacking, fleet owners, more and more, are resorting to the use of alarm systems. One such alarm system which has grown steadily in popularity is the Babaco Alarm Systems, Inc. This is an electric installation which disconnects the ignition and sets off a shrieking siren if a door is opened or the wiring is interfered with. Special battery, siren, wires, and working parts are enclosed in heavy gauge steel cases. In May of this year, the Fruehauf Trailer Co. is said to have announced that all its service branches have been appointed as representatives for installation of Babaco alarms.



The buying public tends to take more seriously a campaign emanating from a group rather than from an individual manufacturer who obviously is trying to sell his own product.

During the war years much of this type of group educational work was done by the government, and the methods so developed should be considered by any association planning a local educational campaign.

"Save fuel by insulating your house," said the government. The result has been a bonanza for the insulation manufacturers and contractors.

Similar campaigns could be conducted either locally or nationally by trade associations. Such programs eliminate from the individual firm's advertising budget the necessity for selling prospects on the need for their type of service. The firm need only concentrate on selling itself as the producer of a quality product in the field or as an expert in its area of service.

Not all the firms to benefit from such a program, of course, will be reputable members of trade associations. Some will even be the so-called "fly-by-nights." This opens another area in which the association program can function. It can offer to the public easily understood tests for deciding on the dependability of dealers or manufacturers in its given field.

Electrical appliance and gas heat installers, for example, are still plagued by companies which have entered the business only to cash in on the present strong consumer demand. Many of these have little consideration for the long run of the business or for the ultimate satisfaction the user will have with his merchandise.

Builder's shows each year have booth after booth of gas heat dealers and manufacturers. What an ideal opportunity this would be for the gas heat installation dealers' associations to present a group exhibit pointing out not only the general advantages of gas heat to the consumer, but also how to judge the quality of the equip-

ment and services offered them.

What does AGA-approved equipment mean in the gas field? If only that one idea were carried over forcefully to the public, the joint expense of a booth would be well worth while. So many of the salesmen for less desirable equipment slide over that detail by using another group of letters to the confusion of the potential buyer.

Surprisingly enough, such educational exhibits can be done on a fairly technical level. If anything, this adds to the weight and authority of the exhibit. The paint display included many of the more technical laboratory instruments for testing and checking paint components and end products.

Women, as well as men, listened carefully to explanations given by technicians who could talk only in the scientific terms they used on the job. With the aid of demonstrations and graphic illustrations, these explanations are understood and accepted by the lay public.

We live in a technical era and it is well on occasion to take John Q. Public behind the scenes and let him know how the wheels really turn. It is wise not to underestimate his understanding of technical data. Even when he cannot quite understand, he is often more impressed just knowing about the detailed care and checking that are needed in preparing the products he uses in his daily living.

It is to be expected that any such group exhibit will raise questions from visitors which impinge on controversial or competitive areas. Methods must be found to handle them. The device used by the Detroit Paint, Varnish and Lacquer Assn. was to present the guest with a form on which to write his question. Answers were devised after the close of the show by a group of experts and written reports mailed to the inquirers.

The most likely question in this area is that of a request for the name of a dependable brand or a good dealer. Such probably are best answered by supplying a list

(Continued on Page 95)

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however, would look on World War II as a similar spur. The general opinion was that the phenomenal rate of growth achieved during the twenties and thirties was a thing of the past; that the industry was near its peak and that any future growth would be gradual.

But here is what has happened: the total number of trucks in use dropped off during the war to a low of 4,480,000 vehicles in 1943. Then, the total began to climb back up, reaching 4,834,000 by the end of 1945. Production of trucks was stepped up considerably during 1946 and the total in service by the end of the year was 5,726,000. Obviously, a majority of the nation's truck owners had kept their pre-war vehicles in service with improved maintenance techniques and were adding as many new trucks as the manufacturers could turn out for them, because total production during 1946 was only a little better than 900,000 trucks.

New truck output for the first half of this year likewise has held at a high level and the total number now in service probably is considerably above the six-million mark. Some of the older trucks are being retired from active service as new ones become available, but the retirement rate is far below normal. The reason can be found in the marked increases so far this year in production of all types of consumer goods, as compared with the early months of last year when we still were in the first phases of converting over from war production to a peacetime economy.

Truckloadings this year are running consistently ahead of loadings for the first months of 1946. If business continues at present levels during the second half—and the second half of the year normally is better than the first in the trucking industry—we probably will finish 1947 with an all-time record in the volume of freight transported.

This continuing and growing demand for motor truck service is part of an evolution in transporta-

tion that began with the twentieth century. There have been many obstacles in the way of the industry's growth but the expansion has gone on in spite of them. I am firmly convinced it is a natural trend that will continue.

Although I will not hazard a guess as to whether—or when—we might experience a recession, I am convinced that any recession this year or next would be comparatively short-lived. A slump in production naturally would show up promptly in truckloadings, but there certainly have been no signs of it so far.

From a long-range viewpoint, I believe motor transportation will become a more and more important segment of our whole transportation plant because of the efficient service that trucks can perform. They excel in movement of small shipments, enabling merchants to have fresh stock when they want it and yet keep their inventories low to avoid being caught with excess stock.

The service is fast and direct, reaching from producer to the door of the consumer or retail outlet on overnight runs of hundreds of miles, so that the goods are on hand in time for the start of the day's business. And it is a service that is tailored to the exact needs of the many different kinds of shippers.

Many obstacles still confront America's truck owners, however, and until the worst of them are solved, the industry's future progress will be retarded, if not blocked completely.

One of these is the current slowdown of essential freight moving into and out of some highly-congested traffic centers—notably downtown New York City—where a lack of off-street loading berths and other facilities for handling motor freight has added considerably to the costs of all business.

A partial solution to this problem is the maintenance of central terminals, to which small shipments can be delivered by local trucks and there transferred to line-haul intercity vehicles. There is a marked trend toward con-

struction of new terminals to meet the carriers' specific needs in cases where structures now in use are outmoded and inefficient. Building restrictions during the war slowed progress in this direction, but many carriers have completed terminals which are models of efficiency. They have spacious grounds for parking, large docks or platforms for loading or unloading, warehouse space for storing freight, facilities for drivers who are off duty, and offices.

The main problem, however, is the construction of adequate shipper facilities for receiving and dispatching freight. Other transportation agencies know full well that this is not a problem for the trucks alone. The truck is the indispensable connecting link between a shipper or consumer and all forms of transportation. This must remain true until a coastwise steamer is able to dock at a downtown department store; until a cargo plane can land on main street; and until a freight car can be unloaded at the corner store.

The problem of traffic congestion at the doors of business and commercial establishments is so acute that it is at least equally responsible with labor costs for a growing trend toward decentralization of industry. Several cities now require all new buildings to have adequate space for off-street parking and for loading and unloading of motor vehicles, but very little has been done about remodeling structures that were built before the motor truck became an important part of our transportation scheme.

Studies now are in progress to develop minimum specifications for shipping and receiving platforms and other motor freight facilities in buildings of industrial and commercial firms. Many factors influence the size of the necessary dock area in any given business, but basically there must be at least twice the total body floor area of the largest number of trucks to be docked at any one time. The reason is that freight normally is loaded five or six feet high in a truck but is seldom tiered on a

loading platform, since it is handled most commonly by hand trucks.

There must also be aisle space and the freight must be moved promptly. If the dock is to be used for storage, the area per truck would have to be larger. Use of mechanical dock equipment, such as fork-lift trucks and pallets, also affects the dock area. These factors also influence the clearance height above the dock.

Specifications also are being developed on the height of a dock from the ground. The ideal height, naturally, would be one to ride flush with the floor of the vehicle being loaded, but variations in types and specifications of the trucks themselves make this problem one of the most vexing.

Recommendations on the problem and on many others are being submitted by equipment and maintenance committees of the 53 State associations affiliated with American Trucking Assns., following their nation-wide studies of existing terminals and off-street shipping facilities. Analysis of the results will lead to proposed specifications designed to bring about standardization of facilities.

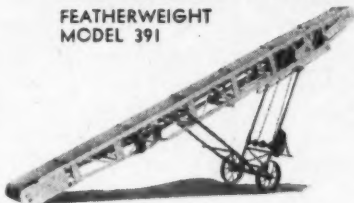
In the long run, this and other problems will be solved, and the nation's shippers will get the full benefits of the many inherent advantages that stem from moving freight over the highways, and in coordinated service between highway carriers, air lines, railroads and the inland waterways.

Long strides already have been made toward coordinating the ground service of motor trucks with the cargo service of the air lines. Contracts have been drawn up by a joint committee representing the American Trucking Associations, Inc., and the Air Transport Association, to provide for such coordination. I am hopeful that similar coordination of service can be achieved in the near future between the trucking industry and the railroads.



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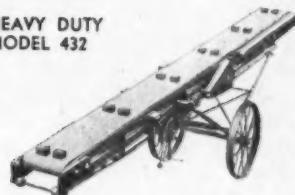


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efficient manner, does the credit rest with you?"

"I presume so," Newman slowly responded as he grasped the import of Jack's question.

"By the same token," chuckled Morton, "you cannot evade liability for any failure in the work of the two departments."

"I'll admit," said Newman, "that top management should be sure to select competent persons to head those two divisions. Nevertheless, I still fail to understand how bungling in the shipping department or in the traffic department of a shipper can tend to increase the freight rates charged by a trucker."

Morton pointed out that the operating costs of a motor truck carrier are influenced by the amount of tonnage which can be moved from one point to another in a given space of time. The overall movement includes loading, transporting, and unloading, and the problem of the carrier is to find ways to move the greatest possible tonnage in the shortest period of time on each vehicle it operates.

"Can you clarify your statement by an example, Joe?" questioned McCormack.

"Surely," answered Morton.

He then went on to say that on a certain date two shippers registered orders with the Kempton Trucking Corp. Each requested that a truck be placed at its loading platform at 9 a.m. the following day. Both companies had shipments consisting of similar products insofar as handling was concerned. Thus, each should have been able to place their shipments for loading to the trucks in about the same length of time.

The consignment of shipper "A" weighed 23,000 lb. that of "B" 18,000 lb. As ordered, the two trucks were placed at the respective loading platforms at 9 a.m. the following day. The truck at shipper "A" was loaded and on its way to destination by 9:50 a.m. Loading of the other truck at shipper "B" was finally completed at 5 p.m. In other words, loading of 23,000 lb. at shipper "A" was accomplished in less

than one hour, whereas at shipper "B" it took eight hours to load 18,000 lb.

"But," protested Newman, "you must be referring to happenings of which each is an extreme."

"Of course," Morton admitted, "but I have given you facts. I purposely used these two illustrations in order to indicate some of the conditions faced by truckers."

"Joe, to what do you attribute the cause for such a wide-spread difference in the loading time at the platforms of these two shippers?" McCormack inquired.

"Basically, because in one company top management takes an interest in its shipping and traffic affairs, whereas in the other these things are permitted to drift," Morton stated. "The traffic department of shipper 'A' is directed by a qualified traffic manager, and its well equipped shipping department is headed by a progressive, experienced shipping clerk. As for shipper 'B,' that company has no traffic department at all, and its shipping department can be described as being moth-eaten."

"Now look here, Joe," insisted Newman, "surely there are only a comparatively few companies which can be grouped along with shipper 'B.'"

Morton shook his head and said, "Unfortunately, the reverse is true. Actually, on the whole, the companies in the shipper 'A' group form a minority. If the majority of shippers were even half as practical as shipper 'A' in regard to loading and unloading of trucks, the operating costs of the truckers would be drastically reduced."

"As I see it," declared McCormack, "the matter goes far deeper than the physical loading and/or unloading of trucks. Proper materials handling equipment at a shipper's plant is necessary, and a carefully arranged schedule of movement of goods to and/or from the trucks is essential. It requires skillful direction all along the line."

"Yes," said Morton, "where that situation prevails in an industry efficiency will be found not

only in loading trucks, but in other traffic and shipping functions as well."

"For instance?" inquired Newman.

"I have in mind a positive cost saving. The traffic department of a shipper analyzed the transportation factors of certain products. This resulted in lowering the truck freight charges on individual shipments."

Morton then explained that a firm which manufactured electrical appliances developed several new products. The company did not have a traffic department. When shipping the new items it depended on a motor truck carrier to designate the bill of lading descriptions. The products were not listed in any freight classification. In devising bill of lading descriptions the motor truck carrier attempted to compare the new products in relation to others already included in the classification. Naturally, the carrier, to protect its interests, used as highly rated articles as possible in making comparisons. This forced very high freight rates. They were so excessive that they handicapped the manufacturer in his sales efforts. Yet, it was not the fault of the carrier.

Eventually the manufacturer employed a competent traffic manager. The latter first obtained data from the various departments of the company, and studied the new products from the transportation angle. He then prepared a proposal and filed it with the motor truck classification committee. The proposal contained a definite classification description with a reasonable rating for each of the articles. The proposal was adopted by the committee and the products were listed and rated in the classification. Thereafter correct descriptions were used in the bill of lading when shipments were forwarded. As a result the shipper saved nearly \$8,000 in trucking charges the following year on shipments of the new products.

"The saving benefited the shipper," Newman said, "but it re-

duced the income of the motor truck carrier. Seems to me that the trucker lost out."

"Not so," exclaimed Morton. "Of course, the classification adjustment gave lower freight rates on the products in question, but the manufacturer's sales were increased. This created greater tonnage for the carrier. Both the shipper and the carrier gained."

"From your explanation, Joe," said McCormack, "it seems that the absence of classification descriptions, which was the cause of the application of exorbitant freight rates, could be considered as an obstacle blocking the free flow of traffic. Obviously that would be disadvantageous to the shipper and to the carrier."

"Unreasonably high freight rates are of no advantage to a motor truck carrier," Morton agreed, "and they most surely hamper a shipper."

"Let me summarize it this way," Morton suggested. "Betterment in one manufacturer's shipping methods and traffic procedures will reduce the company's handling and transportation costs. Also, it will lower the operating costs of the carrier which transports its shipments."

"I'm right with you on that idea," commented McCormack.

"Therefore," concluded Morton, "if all shippers would adopt effective shipping methods and traffic procedures truck freight rates undoubtedly could be brought down from present levels."

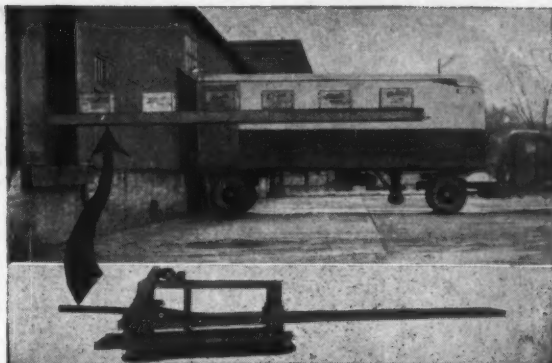
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the various bureaus are discussed below.

**THE RATE AND ROUTE BUREAU.** The activities of this Bureau include the following functions:

1. The determination of applicable transportation charges;
2. The determination of the proper description of the commodities to be shipped in traffic terminology;
3. Furnishing freight-rate information required by other departments of the company;
4. The detection of discrimination, undue preference, unreasonableness, or other unlawfulness in the application of freight-rate charges, classifications, regulations, and practices; and the institution of corrective action;
5. Arranging for diversion and reassignment of shipments;
6. Routing of orders to best over-all corporation advantage in accordance with policy set by the traffic manager;
7. Reviewing bills of lading and freight bills and arranging with carriers for the adjustment of incorrect consigning instructions, routing, product descriptions, rates, weights, and dunnage allowances;
8. Maintaining complete and adequate files of tariffs, Interstate Commerce Comm. reports and decisions, maps, and other matters pertaining to transportation;
9. The negotiation of weight agreements with inspection and weighing bureaus of rail carriers;
10. The detection of overcharge and reparation situations;
11. Analyzing Interstate Commerce Comm. (Bureau of Service), Office of Defense Transportation, and Assn. of American Railroads orders, regulations, or embargoes and issuing necessary instructions for compliance with them;
12. Procuring permits for the exemption of critical shipments made during the effectiveness of Interstate Commerce Comm., Office of Defense Transportation, or Assn. of American Railroads orders, regulations, or embargoes;
13. Analyzing new tariffs and supplements;

14. Making arrangements for the consolidation of small lots originating at more than one plant, storage in transit, or stop-offs in transit to complete loading or to partially unload;

15. Advising the production or manufacturing departments concerning packaging, loading, and shipping of products in order to comply with requirements of freight rate tariffs;

16. Advising the department arranging for insurance coverage with respect to insurance on movements by water transport; and

17. Cooperation with the department responsible for the control and direction of production in allocation of orders, to the end that production be assigned to that plant most advantageously located from the viewpoint of freight rates.

A number of these functions are duplicated to some extent in the transportation bureau. It should be understood the definitions and descriptions used here as applicable to rail transport in the case of the rate and route bureau are, unless stated otherwise, applicable to the similar functions of the transportation bureau with respect to truck and barge shipments.

**THE TRANSPORTATION BUREAU.** The principal functions of this Bureau include:

1. The determination of applicable transportation charges via truck or barge;
2. Expediting and tracing shipments via all transportation agencies, the bureau being charged with the establishment of proof of delivery;
3. Routing orders, moving via truck or barge, to best advantage in accordance with the policy set by the traffic manager;
4. Arranging for improvements in train schedules, truck and water shipping services and coordinating shipments with such schedules and services;
5. Arranging for special transportation movements and determining height and width clearance for movements of large or bulky articles;

6. Arranging for an adequate supply of all types of transportation equipment;

7. The negotiation of leases of cars and locomotives and other needed transportation equipment from railroads and other suppliers;

8. Arranging for inter-city movements of employees' household goods;

9. Interpreting carriers' rules concerning interchange, loading, and car service;

10. The negotiation of "average agreements" for settlement of demurrage charges;

11. The establishment of necessary credit accommodations with carriers;

12. The negotiation of side-track agreements with railroads;

13. Arranging passenger reservations for company personnel;

14. The negotiation of service agreements with contract motor and contract water carriers;

15. Negotiating tank car rental contracts;

16. The determination of proper tariff description for use in truck and barge shipments;

17. Furnishing rate information for truck and barge shipments to other departments of the company;

18. The detection of discrimination, undue preference, and other violations of law, in the application of rates for truck or barge movements; and the detection of service discriminations in connection with all forms of transportation, including action looking toward correction of the condition; and

19. The review of bills of lading and freight bills covering truck and barge shipments.

**THE CLAIM BUREAU.** Among the services of this Bureau may be found those of:

1. Preparing, approving, and filing with carriers claims for overcharges, loss and damage, and terminal allowances;
2. The preparation and filing with carriers of claims for reparation and for adjustment of charges under provisions of fabrication-in-

(Continued on Page 88)



## INSURANCE RATES

(Continued from Page 29)

source. Insurance companies are inclined to make a substantial charge in the rate where a trucker regularly uses hired units, or where he makes use of any system which does not give him complete operating control over the drivers and over the maintenance of the trucks.

Probably the most important single factor in loss probability is the selection and control of drivers. Experience indicates that the majority of claims are the result of driver error, sometimes contributed to by management error which has set up poor procedures. Safety programs and driver training are essential parts of any motor truck operation. It is necessary to eliminate the accident-prone driver. This means not only the man who is likely to have a collision on the road, but also any driver who is careless in making deliveries, who leaves his unit unguarded so that hijackers find it easy to drive off, or the driver who handles his unit in such a way that the cargo is shifted or damaged. Complete records should be secured concerning any applicant for a driver's position, and his fingerprints should be checked with law enforcement authorities to disclose any criminal record. Many a truck operator who would not trust a man with ten dollars until Saturday, will place a \$30,000 load of merchandise in the man's sole care for delivery many hundreds of miles distant. The operator must realize that by placing a high-value load in the hands of a driver, he is placing a large amount of his own money in the driver's care. If the driver has a loss, the operator is going to pay for it in future years in his insurance premiums.

Drivers with the best records are those over thirty years of age. Some insurance companies are giving a credit in the rates for an operator who has 90% of his drivers more than 30 years old.

Motor truck operators should keep detailed figures on each driver in their employ. This record should include not only the acci-

dents on the road, but should also include complete details regarding handling of equipment, record of lost packages and mis-deliveries, and any personal characteristics which may influence loss probability.

It is wise for a trucker to have his insurance policy written with a \$250 or \$500 deductible clause. The trucker is going to pay for the small losses, whether he pays them directly or whether they are included in insurance premiums. When he pays them directly, the trucker eliminates the insurance company over-head on those items.

The making of insurance rates is the process of estimating in advance the chances of loss. There are many intangibles in the trucking business and some of the measurements must be based on judgment, but the fact remains that a good trucker pays a low insurance rate and a poor trucker pays a high rate. Some of the high-rated risks are having difficulty in finding an insurance company willing to carry their cargo insurance. Insurance companies are eager to write insurance on any line of business which they believe will produce a satisfactory loss ratio. The trucker who finds that he is paying more for his insurance than others in his business should examine his loss record to see just what it is which makes it necessary for the insurance companies to charge him a high rate. Then he can proceed to correct it.

## AIRLINES AND REA

(Continued from Page 48)

might happen in this event. We might even be faced within a comparatively short time with a stoppage of present air express service provided by the airlines and REA. This certainly would precipitate a situation detrimental to all concerned. Nonetheless, the airlines feel that "the facts are such that anything except a temporary continuance of the present REA exemption (from the economic provisions of the Act of 1938 by the CAB) would be inconsistent with sound future planning for the transportation of property by air."

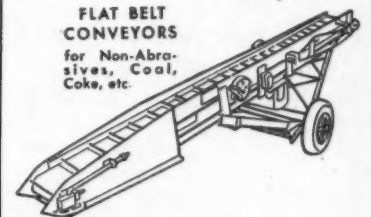
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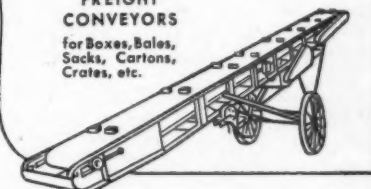
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transit tariffs, and other special and terminal service tariffs;

3. The negotiation with carriers for disposal of material rejected by consignees, (either by the company or by its customers), and for the salvaging and reconditioning of material damaged in transit;

4. The negotiation with carriers concerning weight discrepancies in shipments of raw materials;

5. The maintenance of the general files of the department; and,

6. Analyzing the rulings and decisions of the Interstate Commerce Comm. and other regulatory bodies, involving loss, damage, or overcharge claims and carriers' liability.

**THE STATISTICAL BUREAU.** The functions of this Bureau include:

1. The development and maintenance of traffic statistical data;

2. The compilation of monthly reports, listing cars and tonnages shipped, and amounts paid to transportation agencies; and

3. The compilation of periodic and regular reports of tonnages shipped via motor and water carriers.

In this analysis of a typical traffic organization and brief statement of the level at which the various functions are carried out, no attempt has been made to do anything more than to define some of the relatively more important functions and to explain a few of the sometimes confusing terms used in the traffic field. It has been stated that a typical traffic department could not exist because of the varying requirements of different businesses. It is also true that the concept of the traffic function differs materially, depending upon individual circumstances.

In many companies certain responsibilities that involve functions directly related to the shipment of materials are included in the scope of traffic control. For example, rate tariffs carry provisions for application of different rates, dependent upon how the consignment is packaged when tendered for shipment, and direct control over these matters is not

infrequently exercised by the traffic department in coordination with other responsibilities. Similarly, the loading and bracing and storing of materials is frequently considered to be primarily a traffic responsibility and is under the direct control of this department. There is much to be said in favor of such an alignment of authority.

Traffic controls should not be considered as being limited to transportation performed by public utilities or contract carriers. Traffic engineering extends into the study of costs for other types of transportation; such as conveyor belt, gantry crane, narrow-gauge railroad, truck, or barge and lighters. It is certainly logical that the full benefits of effective traffic control are more likely obtained where there is no division of responsibility with respect to materials movements, regardless of where in the operations cycle those movements may occur. Any one of these forms of transport may involve costs higher than are necessary, and the substitution of a more economical form of transport may be overlooked through the lack of proper traffic engineering. Many industries recognize this and progress has been made with respect to better delineation of transportation responsibilities and consequent organizational changes.

Another phase of traffic management seldom considered is the design of transport facilities found by cost studies to improve economy in the handling of materials. This influence on design of equipment extends beyond the immediate ownership of the company, because by cooperation with carriers or with builders of transport equipment traffic management is able to stimulate the construction and use of newer forms of equipment that will produce economies in handling of materials.

As a service facility transportation is an intangible thing. Yet without materials movement there can be no production, and the finished product cannot be distributed. Internally in its relation to other departments of the company,

the traffic department of every industrial organization performs a service function in advising concerning the solutions of problems dealing with the specialized field of transportation. In the sale of products in competitive markets, the traffic department acts in a service capacity by informing the sales department concerning the cost of transportation from the producing mill to the point of delivery, as well as from the shipping point of the most favorably located competitor. Obviously, knowledge of a competitor's transportation costs is an important factor of intelligent competition. The adverse difference in these charges may be such as to absorb most or all of the profit in a given transaction and may even cause an actual loss. The same is true with respect to the purchase of raw materials or supplies. Unless full consideration is given to the cost of transportation, the costs of assembly may rise so high as to make it impossible to show a profit, even under favorable market conditions. Production planning must consider, among other factors, the cost of transportation in assigning production to the several units producing identical items. The operating departments are likewise concerned with transportation cost and use the service of the traffic department in the determination of their problems.

In addition to the matter of transportation cost, all of these divisions are also concerned, in a major way, with the form and efficiency of transportation services. Adequacy of flow and maintenance of schedules are of prime importance. A service failure may convert a manufacturing operation from a profitable to a loss basis. Through traffic planning and management or control, the traffic department provides a service essential to each step in the cycle of production. The traffic advisory function is extended to every subdivision of a company. Through close cooperation and intelligent assistance, the traffic department makes an important contribution to the success of the company.

An industrial traffic department

in its relation to other departments of the company is primarily a service organization. However, the cost of transportation, in modern business, is a factor of increasing prominence. Raw materials are assembled from far distant points; specialization of operations involves increasing amounts of transportation in the process of manufacture; and the markets for finished products extend throughout the country and to other parts of the world.

The more highly developed the industrial economy, the more significant is the function of transportation. An index of the efficiency is the extent to which transportation is employed. The

achievements during the recent war attest this fact. As the amount of required transportation increases, the cost of transportation becomes a larger factor of total production costs. As the cost of transportation grows in importance, the financial success of an industrial enterprise becomes more and more dependent upon proper traffic control. Because of the complexity of the subject, there are few fields where such large amounts of money may be lost or saved by inefficient or by efficient operation and control. The financial success of a large industrial organization may depend on its ability to handle its transportation problems efficiently and economically.

### CHANGING CHANNELS—(Continued from Page 74)

selling of other brands in addition to their own.

Mr. Lebow considered the ultimate directions in which the channels of distribution are moving to be: (1) concentrated short line high-turnover operation, (2) open display, self-service supermarket, (3) cut-rate selling of advertised brands where the Fair Trade Acts do not operate.

Figures indicate, went on Mr. Lebow, that the distribution pipelines are going to have to carry an enormous increase in goods and services in 1950 and still more in 1960. The Bureau of the Census estimates 44.3 million families by 1960 as against 37.9 million today. But in 1950 only 25 percent of the consumer units will be in the \$3,000 and over income class. Today 455 corporations, constituting

less than 1/8 of one percent of the total number of corporations, own 51 percent of the assets of all corporations in the U. S. This concentration will affect distribution even more in 1960 than it does today. Mr. Lebow estimated that by 1960 chain stores will be doing close to 2/3 of the retail business of the country, with organized groups of independents competing. The marginal distributors will have been forced out of business by that time, and we will have reversed the trend toward more outlets and will have fewer, doing more of the business. This lessening of competition would seem to be leading to a decline of our free economy, but, Mr. Lebow pointed out, this would be discounting the underlying strength of the American people, their love of freedom and their enterprise.

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for the benefit of pressure groups, and peg prices out of proportion to the cost of production, handling, marketing and reasonable profit.

2. **PATENTS.** J. F. Lincoln, president of the Lincoln Electric Co., says, "Patents should not be used as an umbrella to ward off competition and prevent low selling prices which give this country its high standard of living." Apparently Mr. Lincoln feels that where a patent produces monopoly, the selling price does not reflect actual production plus distribution cost and therefore increased productivity may mean little to the consumer in lower selling prices.

3. **TARIFFS, STATE AND NATIONAL.** There is one price for farm produce in St. Louis, another price in East St. Louis, right across the river, because of the tariff levied on trucks. In some instances, national tariffs keep up prices and there is a good chance that tariffs will come in for wider use before long. Maybe tariffs are economically sound, nevertheless, they are inflationary non-distribution factors in the spread.

4. **BUSINESS LEGISLATION.** Fair trade practice acts, passed to minimize price-cutting, force maintenance of a specified mark-up and keep prices up regardless of handling and marketing economies. Many businessmen are now grumbling about this legislation, contending that it prevents price reductions in many lines. The price-cut is a gyroscope in supply and demand, a means of clearing the pipe lines to keep production moving smoothly. When its operation is restricted legally, the spread between production cost and consumer price may be kept artificially high despite a low distribution cost. Milk control boards and similar government controls come under this category.

5. **TAXATION.** Excise taxes levied below the retail line increase the price the consumer pays, the toll hidden in the mark-up. In the liquor field, this tax inflates the price all the way from distiller to retailer. The consumer pays the spread, but this sum may include

comparatively little genuine distribution cost. Chain store taxation also has a tendency to increase consumer prices. Income taxation, where a concern in the distribution area adds the income tax to operating costs, inflates the spread.

6. **SUBSIDIES.** If the government would stop plowing under potatoes, consumers could buy spuds for less money even though the cost of distributing potatoes remained the same.

7. **CARTELS.** International monopolies involving the control of production, the division of markets and other restrictive devices, sometimes direct price-fixing. When cartel agreements involve goods made in the United States, they maintain prices at an abnormally high level. Handling and marketing costs could be cut to the bone on such commodities and the consumer not benefit with lower prices.

8. **SPECULATION.** Speculators buy eggs and other commodities and hold them for higher prices. The recent "corner" in butter in the New York area is a case in point. The black market in steel is another example of a price-boosting factor in the spread not properly chargeable to distribution. Such speculation is common to our economy at all times.

9. **ARBITRARY UNION RULES.** "Feather-bedding," restrictions on apprentices and other union practices inflate the spread that is erroneously called distribution cost.

10. **PRICING PRACTICES.** Some lines are priced without regard to genuine distribution cost but on the basis of style, consumer buying preferences and merchandising practices. Millinery may be priced at 200 percent mark-up in season and sold below cost out of season. Before the war a battery that cost about five dollars to make sold for 11 dollars, a companion unit that cost six dollars sold for 20 dollars, the dealer being given a fatter margin to induce selling cooperation. This sort of price jugglery is characteristic of much merchan-

dising under free enterprise and does not follow the trend of marketing and handling costs.

11. **CURRENCY IN CIRCULATION.** As of December 1946, the outstanding currency totaled 21 billion dollars, whereas prewar circulation ran around seven billion dollars. This has an inflationary effect on consumer prices that bears no relationship to handling or marketing costs. Banks are now promoting thrift to induce a return flow of currency to savings, and if successful, their efforts should deflate prices more than handling or marketing economies. Monetary inflation is not the fault of businessmen nor can they apply correctives to eliminate this "water" in the spread.

12. **FOREIGN COMMITMENTS.** Senator Taft said recently that heavy spending abroad will keep prices up. Shipments of commodities abroad and foreign loans increase the spread between producer cost and consumer price. These commitments help keep our food prices high more than inadequate distribution productivity.

"Business management," said Mr. Turek, "can dissipate the impact of a buyer's strike by increasing distribution productivity. The result of increased productivity would be a 22 percent reduction in average consumer prices. This achievement is possible through the practical application of improved methods and not the use of theoretical cuts in wages, profits and merchandising discounts."

Mr. Turek's assumption is that business management can bring down prices by increased distribution productivity or economies in handling and marketing, but I believe that the inflationary factors that lurk in the spread, erroneously called distribution cost, are continually obstructing these efforts. An impartial study of the effect these factors have upon selling prices, research conducted apart from the cost of handling and marketing operations on a man-hour basis is essential to a sound solution of this problem.

## HIGHWAY TRANSPORTATION—(Continued from Page 63)

tances up to about five hundred miles. These are the hauls which can be made faster than by rail or water and cheaper than by air. Among the advantages of trucking commonly cited by shippers are overnight delivery, flexibility of schedules and size of unit shipments, lower packaging and handling costs, convenience of door to door movement, and the shipper's alternative of providing part or all of his own facilities, thereby bringing conditions of shipment more closely under his control. Economy is, of course, the primary factor determining the form of transport to be used. But the calculations of traffic managers must take into consideration not only net freight bills, but also packaging and handling costs, losses and damage in transit, insurance, warehousing, local delivery and other similar indirect factors related to the cost of moving goods to market.

Two of the trucking industry's worst headaches—scarcity of equipment and the increasing age of existing fleets—are hang-overs from war-time. The continued operation of older vehicles is costly to the industry in operating and maintenance charges. It also increases accident rates and makes breakdowns and schedule interruptions more frequent.

About five million trucks are now in operation in the United States. In the first five months of this year the *Automotive News* reported that more than 535 thousand new trucks were produced in this country. Last year's output was about 900 thousand units. Trucks are still in short supply but the U. S. Dept. of Commerce estimates that 1.25 million to 1.5 million will be produced this year. Peak truck output was reached in 1941 when 1,094,000 were produced, but of these 219 thousand were military vehicles.<sup>2</sup> If truck production can be maintained at the current rate or better for another year these problems will be well on the way to solution.

Major longer-run problems of the industry are:

1. Construction of an orderly highway system to replace the present patchwork of roads now in use in many parts of the country.
2. Proper allocation of the costs of such improvements among private motorists, trucks and the general taxpayer—a source of endless controversy.

3. The development of uniform traffic laws with generally accepted enforcement standards.

4. Fair, efficient, public regulation.

The ultimate need is to view America's transportation by rail, highway, water, pipeline, and air, as a whole and to determine adequate guides for the progressive development of this vital sector of our economy. In this way more rapid progress will be made toward overall transportation efficiency.

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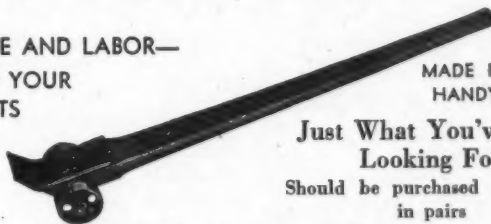
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<sup>2</sup> Domestic Commerce, January, 1947, p. 48.

gram), on any equitable basis. The word already is going around that the talks in Paris, between Molotov, Bidault, and Bevin, in effect amounted to an appeal by the French and the British that they might take advantage of the American proposals, with Russian approval, in order to rehabilitate themselves. Molotov presumably intimated that the plan would not be considered valid by the Russians unless the Russians also might share in benefits. In other words, the very action of the French and the British appears to demonstrate the crushing dominance of the Russians in Europe and in the East, and poses a big question mark as to whether we Americans may not be far too late with our plan to "contain" the Russians by giving civil and military aid to Greece, Turkey, Italy, France, Czechoslovakia, and other nations of Europe and Asia. The Hungarian coup d'état is thought by some to have placed the Russians in a dazzling diplomatic light before the Europeans, and the East, and apparently has largely wiped out the effectiveness of our Greece-Turkey gesture which was to flower over all the world.

Congress will have the task of making some overall policy to guide the thought of the nation as well as to give direction to the fumbling efforts of those who are in charge of our foreign relations. Many here in Washington feel that the World War III is actively in the making, and that present maneuvering is chiefly a process of choosing sides. Even the cautious Chief of the General Staff, Gen. Eisenhower, told Congress that war is possible in 1948.

The next six months—some think three months—may reveal startling developments which will shock many complacent business people. Those who are closest to events transpiring behind the curtain are generally agreed that it is urgently necessary to wake the nation to an awareness of the seriousness of the prospects that confront us. Even Eisenhower warned Congress that our military organization is a bad second to

that of the Russians. In the simplest and plainest terms it is generally agreed here among thoughtful observers that the Russians are engaged in moving their lines of approach as closely as practicable, under so-called conditions of peace, to our boundaries in the Atlantic and the Pacific areas. Meanwhile we are attempting to make counter moves in Europe and Asia. Our program, civil and military, based upon the outline given by the President in explaining the Greece-Turkey enterprise, and expanded to cover a number of other nations, is expected to cost us between eight and ten billion dollars per year, for at least three years, if we have the three years of grace to do any kind of peaceful job abroad. Incidentally, how a reduction in taxes may be justified in the light of this program apparently baffles even the leaders in Congress. The best answer they can give is that the United States is so powerful, and so inexhaustibly resourceful, that it can perform any kind of marvel under pressure.

The Greece-Turkey adventure is under way, supervised by the New Deal Republican from Nebraska, former Gov. Griswold. In the light of what has happened at the Paris talks between Molotov, Bevin and Bidault there is considerable quiet questioning here in regard to the good sense in going ahead with the program on a larger scale. There is no real challenge of the need to spend the money to create some sort of union among the nations and the peoples who believe in the essentials of democracy, and to bind them together in some sort of economic protective solidarity; the question is what form this combination should take, and who should be part of it.

The idea is rapidly growing here that Russia already has virtually formed a coalition of most of the nations of Europe and Asia whose people accept the Russian ideology, and who are susceptible to Asiatic despotism, or who must submit to Russian economic dominance. The thought is growing in

many minds that the United States should spend its billions in support of some sort of coalition for economic purposes which would include Britain, Denmark, Norway, Sweden, and similar countries of Europe, as well as Australia, South Africa, New Zealand, Canada, Holland, Belgium, and Luxembourg. There is little doubt that this idea will flower by the time the special session takes place, and will be one of the most interesting subjects of debate. The realism of this proposal undoubtedly will make a much greater appeal to most of the members of Congress than the Greece-Turkey program.

Meanwhile, the State Department is rapidly putting together the organization which will make the Greece-Turkey enterprise function. It is patently built up with one eye on the 1948 campaign. The new foreign aid organization will provide at least 175 jobs in the upper brackets. It requires but a small range of perspicacity to realize that there are vast numbers of new high salaried jobs in the offing when the ten billion dollar per annum program starts to roll. This aspect unquestionably will cause some resounding oratorical explosions when the deal comes up for discussion in the special session.

Our exports today are going overseas at the rate of 20 percent to 25 percent of our total annual manufactures. These exports are supplying the backbone for the high-pressured operation of our economy, and the amazing employment of great numbers of workers. Overall, latest reports reveal upwards of 59 million persons are at work today in this country. This is greater than any number ever simultaneously employed in the work of this nation, even during the most hectic days of the war. Over a million women have again left their homes in the past few months, and are working in factories, offices, shops, or wherever they may obtain jobs. The Department of Labor has found that, in almost every industrial region, applications for jobs are from 200 percent to 500 percent



more than in early Spring. Not much is said about it but there is considerable increase in the employment of women and men in plants which are producing materiel useful in war. Also there is an increase in certain types of activity connected with export. The government calculates that every billion dollars worth of export merchandise directly results in the employment of a million persons, and indirectly puts many more to work. Exports are acquiring the momentum now which in 1945 stemmed from war needs, and in 1946 sprang from the tremendous long-repressed domestic demand. Dollar resources are running low in foreign countries. Most nations either have not or cannot sell us anything we need at this time. This is the current situation, which causes many in Washington to be jittery. They are feverishly anxious to get the larger foreign program launched in order to maintain and expand our exports. They fear that if the flow of goods and commodities slows down, the recession may set in.

A substantial number of officials in the State Department apparently are opposed to any suggestions that we should require nations, whom we help to pay for our loans or grants in raw materials which we do not have. The Malone Committee of the Senate, in its hearings, has developed a list of ten or twelve basic materials which we have in scant supply or which we do not have at all.

Several chiefs of various sections of the government recently were sent to Europe to bring back reports on its condition and needs. Others went to Asia. All reports paint a dark picture of devastation and annihilation in Europe and the absence of any beginnings of rehabilitation. Those who have come back from Asia forecast the early collapse of organized Government in China and confusion in India. Almost invariably those who were in Europe tell of the stupendous need and the lack of money, or other means, to pay for what is needed. In Germany there is an extremely abbreviated production of textiles and small goods. Eighty percent of these

wares must be exported to pay for occupation costs. The maker must turn his goods over to the occupying government, and the occupying government sells the wares and keeps the returns. The picture you get broadly is that Europe is a shambles, daily falling into greater decay, and its people are sinking deeper and deeper into a morass of depression and despair.

The Bulwinkle Bill, known in the Senate as the Reed Bill, S. 110, was passed by the Senate, by a vote of 60 to 27, and is now in the House Interstate Commerce Committee undergoing public scrutiny in a series of hearings. It is expected to be reported out of Committee before this is published, and will undoubtedly be passed by the House. Its unexpected adoption by the Senate is considered largely due to the influence of Senator Clyde M. Reed, of Kansas, who made its passage a personal issue with his fellow Senators. The debate preceding adoption was marked by lurid charges of lobbying, and by assertions that the Anti-Trust Division of the Department of Justice had actively campaigned against the bill, and had exceeded its authority as a Government agency in its activities. Senator Reed was lead to ask publicly: "How far is a department of the government to be allowed to go in definite opposition to an overwhelming majority of both Houses of Congress?"

As passed by the Senate the bill exempts carrier agreements from the anti-trust laws if they are approved by the ICC. It applies to railroads, steamship companies, motor and bus lines, and pipeline companies; and affects agreements on rates and fares; settlement of claims; promotion of safety; promotion of adequacy, economy or efficiency of operation of service. It may not affect the suit of the State of George against a group of railroads; and it may not discriminate among shippers or geographical areas; and it bans banks from being members of any conferences or bureaus set up under the bill. Even if the House finally passes the bill, it is anticipated the President will veto it, and that the Senate will not vote down the veto.



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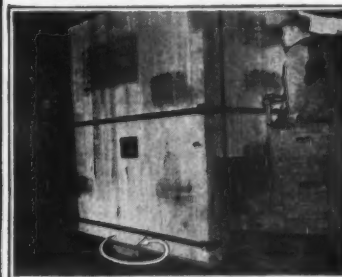
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# Getting down to *Cases*

By LEO T. PARKER  
Legal Consultant

## TRANSPORTATION

### Things You Can Do

**YOU CAN** obtain grant of certificate of convenience if you prove necessity or great public convenience. See Tennessee Cartage Co., 199 S. W. (2d) 119.

**YOU CAN** compel a shipper to accept goods lost in transit, if you locate them although the shipper meanwhile has purchased other similar goods. See Hunt, 51 Atl. (2d) 379.

**YOU CAN** avoid liability for injuries to service station employees caused by a defective tire. See Sallee, 198 S. W. (2d) 842, where a defective truck tire blew out, when being inflated, and killed a service station employee. The truck owner was held not liable in damages.

**YOU CAN** remodel your present building although a new city zoning ordinance prohibits establishment of similar new businesses. See Lone, 50 Atl. (2d) 638.

**YOU CAN** refuse to pay "executives" wages specified by the Fair Labor Standards Act. See Walling, 159 Fed. (2d) 395.

### Things You Can't Do

**YOU CAN'T** afford to send trucks out without spare tires. Testimony showed that a carrier failed to equip a rear trailer with more than one spare tire, and that the driver left the equipment loaded with valuable supplies unattended while he went for help to fix a tire. The higher court held that this testimony justified a finding of negligence that would render a common carrier liable for destruction of the goods by fire while the driver was absent. See Brignoli v. Seaboard Transp. Co., 178 Pac. (2d) 445, Cal.

**YOU CAN'T** hold a teamster's union liable for acts of a member unless you prove that this member was authorized to represent the union. See Fife, 52 Atl. (2d) 24.

**YOU CAN'T** prevent a Public Service Comm. granting a permit to another motor carrier if you have failed to adequately serve the public. See Yellow Transit, 178 Pac. (2d) 83.

## WAREHOUSING

### Things You Can Do

**YOU CAN** accept for storage goods awaiting transportation facilities to points outside the state without paying state taxation on the goods. See Young Co., 178 Pac. (2d) 745, where the higher court held that a company need not pay taxation on goods to the State of California in which the goods were stored in warehouses, until ships were available to transport the goods.

**YOU CAN** deliver goods to the last holder of negotiable warehouse receipts endorsed in blank by the original holder. See Tom, 179 S. W. (2d) 145.

**YOU CAN** depend on records of weather predictions to assist you to win a suit for flood damage to stored goods only when these records are authentic. See Seaboard, 68 Fed. Supp. 169.

**YOU CAN** refuse to pay compensation to an employee who delayed filing his claim for compensation an unreasonable period of time. See Leake, 196 S. W. (2d) 542.

### Things You Can't Do

**YOU CAN'T** avoid paying state taxes on the "business" of storing goods shipped from outside the state for distribution in the state. See Independent Warehouse, 67 S.Ct. 1052.

**YOU CAN'T** change the location of stored goods from one warehouse to another warehouse without consent of the owner of the goods. See Robinson, 69 N. E. (2d) 20.

**YOU CAN'T** limit your liability for lost, stolen or damaged goods unless the owner of the goods agrees to the limitation, as by a clause in the warehouse receipt which is delivered to him before or at the time the goods are accepted for storage. See Hanna, 68 N. E. (2d) 170. Also, for ordinary bailment limitation of liability see Casey, 124 W. Va. 143.

**YOU CAN'T** expect to win a law suit filed by a child injured by something left where you know children are accustomed to play. See Mieland, 50 Atl. (2d) 275.

## PACKAGING

### Employer Liability

An employee's pay-roll check was stolen from his locker and cashed with his forged indorsement. The employee sued the employer and the higher court held that the employer must stand the loss. See Rettinghouse v. Krey Packing Co., 200 S. W. (2d) 584, Missouri.

**FAIR LABOR STANDARDS ACT.** Whether an employee is engaged in interstate commerce, and must be paid wages specified by the Fair Labor Standards Act, depends not upon whether the employee's activities indirectly relate to interstate commerce but upon whether they are actually so closely related to the movement of the commerce, as to be a part of it. See Phillips v. Star Co., 149 Fed. (2d) 416, where it was shown that 95 percent of the employer's business was done with customers within the state and 5 percent with people outside that state. The higher court held that the em-

ployer must pay the employee wages specified by the Fair Labor Standards Act.

**COPYRIGHT INFRINGED.** According to a recent higher court an advertiser who uses copyrighted advertising matter for longer than the term of the contract is liable as an infringer. See Amsterdam Syndicate v. Fuller, 154 Fed. (2d) 342.

## FINANCE AND INSURANCE

**PRESIDENT ELECTS SELF.** A president of a corporation may cast a deciding vote electing himself. See Landstreet v. Meyer, 29 So. (2d) 653, Miss., where a corporation's board of directors fixed the president's salary, on a three to two vote. The president cast the deciding vote. The higher court held that this procedure is valid providing the services rendered by the president are reasonably worth the amount of the salary, otherwise the procedure is void.

**NO APPLICATION.** In Keehn v. Brady Transfer & Storage Co., 159 Fed. (2d) 383, it was shown that an Iowa statute provides that the maximum premium payable by any member of a mutual insurance company shall be "expressed" in the policy and in the application for insurance. A policyholder was held not liable for assessment where the policyholder was never requested to sign and never signed an application for insurance.

**TAX BOARD REVERSED.** According to a recent higher court all taxpayers and corporations dissatisfied with assessments made by tax boards may appeal to the higher court which will reduce the assessments to conform with the opinion of expert witnesses. See Evening Times Co. v. City of Bayonne, 48 Atl. (2d) 916, N. J.

## MARKETING

**PERPETUITY VOID.** All sale contracts are void which include a clause to purchase merchandise at a definite price, with no definite time limitation. Such a contract is a perpetuity prohibited by law. See Brown v. Mathis, 41 S. E. (2d) 137, Ga.

**NOT FRAUD.** Ordinary "puffing" or exaggerated statements made by a seller does not constitute legal fraud. In American Co. v. Lamb Laundry, 34 S. E. (2d) 190, N. C., it was shown that a purchaser signed a written contract to purchase certain machinery. This contract contained a clause to the effect that the contract constituted the entire agreement between the parties, all previous memorandums, either

written or oral, and that "no representations, agreements, promises or warranties relating to the subject matter of this contract" are valid. The higher court held that this clause is rendered void and has no legal effect if the testimony shows that the seller, or his salesman, made fraudulent statements or promises to the purchaser relating to the quality or efficiency of the machinery. During the trial the purchaser testified that the salesman represented that his machinery would "do better work, more economically and with less labor" than the machinery then used by the laundry owner in his business. The higher court held that this statement is not fraudulent although the new machinery took more labor to operate, and did not run satisfactorily. The higher court held the purchaser bound to pay the agreed contract price. The court said: "Commendatory expressions or exaggerated statements as to value, or the like of equipment, as where a seller puffs up the value and quality of his goods, or holds out flattering prospects of gain, are not regarded as fraudulent . . ."

### Question Box

**Question:** We took an offer and made a conditional contract of sale to secure balance due us, but we did not have this contract recorded. But by mistake we recorded a memorandum which contained about the same data as the contract. A county official attached the machine, represented by the memorandum and contract, and sold it to pay off a debt owed by the purchaser. This purchaser did not notify us about the attachment. The county official has informed us that we have no legal rights because we did not record in the county Recorder's office the conditional contract of sale. Can you give our legal rights in this matter? Webster Sales Co.

**Answer:** All courts hold that public officials are personally liable for neglect of their duties. Thus, in this case the important point is whether the county official should not have sold the machine to satisfy a debt owed by the purchaser who also owed you for the machine. A late case, *Willis, 49 Atl. (2d) 106* is in your favor. In this case the Sheriff served papers and attached and sold an automobile on which the seller had failed to record the conditional contract of sale. But the higher court held that the Sheriff must pay the seller the amount due from the purchaser because he failed to locate a paper giving details of the transaction.

### Truck Decals.

Decalomania advertisements are now being supplied by Frankfort Distillers Corp. for use on its dealers trucks.



## SALES PROMOTION—(Continued from Page 81)

of the names of the members of the sponsoring association in good standing.

Some of the questions, inevitably, will deal with matters about which there is no agreement among experts in the field. For this type it probably is best to explain that it is a controversial matter and to give, briefly, the arguments and authorities on both sides leaving the layman to come to his own decision or to make further inquiry if he is interested.

Such cooperative action will do more than a selling job for the members of the association presenting the exhibit. It will tend to make the show itself more interesting to the public and, in turn, to increase attendance at the exhibition.

It will not eliminate the possibility or the function of individ-

ual booths for more direct sales and may in fact tend to give greater interest to individual product or dealer exhibits.

The cooperation of museums and educational institutions can be obtained for the purely educational type of display whereas these groups tend to avoid any tie-up with a purely commercial presentation. For instance the Cranbrook Institute of Science cooperated with the paint association and helped them work out the historical section of the exhibit which proved of so much interest to the public and was valuable for showing the contrast between prehistoric and modern pigment sources.

This new area for cooperation might well be considered by existing associations for advertising programs and community action as well as for exhibits and shows.

## WATER WAGONS—(Continued from Page 66)

the loaded equipment by water between the ports.

Finally, the interest of the Federal commissions, the army, and the navy must be considered as bearing directly upon the new interport service. Coastwise water carriers are today reduced in tonnage to a shadow of their prewar capacity. The armed forces have, through their spokesmen, warned again and again against the dissipation of the coastwise and intercoastal fleets, which have long been characterized as our first line of defense, transportationwise. It is no more than logical to assume that the government would take steps to advance the cause of any valuable addition to such water service, if only for the national defense feature. It can be readily seen that the vessels designed for the unconventional two-medium coastwise operation would be singularly adaptable to wartime use. They are fast. They are large. They can be made to accommodate a sizeable complement of men—

perhaps as many as a thousand troops per voyage. They are particularly suited to the transport of mechanized equipment, mobile guns, tanks, light and heavy trucks, command cars, and mobile units of many specialized kinds. Above all, they will provide a training ground for crews to operate them in time of emergency. If the motor carrier is to be a useful adjunct to the nation's armed forces in any future crisis, as it definitely was in the last, certainly the craft to move such equipment must be considered to be of equal importance.

So, while at first blush, the ocean truck-ferry may appear to be one of a multitude of impractical postwar schemes, too expensive for experiment, too revolutionary for common acceptance, the fact remains, that there are many sound reasons for its establishment in a practical nationwide plan of transportation within the two years which will be required to place it in operation.

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The September issue of *DISTRIBUTION AGE* will discuss systems and equipment currently used or proposed for more operational efficiency in the various distributive activities.



# People in Distribution

**Carl H. Bartels**, traffic manager, H. Bowser, Inc., has been named Fort Wayne, Ind., chairman of the Freight Loss and Damage Prevention Committee of the Midwest Shippers Advisory Board. (Kline)

**Hoy Stevens**, chief of the equipment and maintenance section, American Trucking Assn., Inc., has been elected chairman of the Washington, D. C., section of the Society of Automotive Engineers.

**Lauren Lewis**, assistant general manager of the Regular Common Carrier Conference, ATA, has been appointed general manager of the Associated Motor Carriers, Inc., of S. D.

The Freight Claim Section of ATA has re-elected **T. W. O'Neill** of the Geo. F. Alger Co., Detroit, as chairman; **Leroy C. Welch**, Des Moines Transportation Co., was elected first vice chairman, and **W. P. Downey**, Eastern Motor Dispatch, Columbus, O., was elected second vice chairman.

**Robert H. Peirce** was appointed general agent, Preston Trucking Co., Preston, Md.

**John J. Phillips**, manager, Motor Express Inc., has been appointed manager, rate department, Fort Wayne (Ind.) Traffic Bureau. (Kline)

**James E. Black**, division freight agent of the Chesapeake & Ohio R. R. was elected president, Toledo Transportation Club. (Kline)

**H. E. Schauble** was appointed traffic manager, Booth Fisheries Corp., Chicago.

**Hervey F. Law** was named general superintendent of airports, The Port of New York Authority, and **William M. Schwarz** was named chief, scheduled air transport division.

**Arthur C. Doyle** has been named sales manager, Colonial Airlines, Inc.

Eastern Air Lines, Inc. has made the following appointments: **Louis Calta**, assistant traffic and sales manager, Washington, D. C.; **Andrew G. Diödel**, traffic and sales manager, Louisville, Ky.; **Richard J. Currie**, assistant traffic and sales manager, Detroit; **Wayne B. Glasgow**, traffic and sales manager, Nashville, Tenn.; **John A. Swanson, Jr.**, traffic and sales manager, Corpus Christi, Tex.; **Orland J. Ridenour**, traffic and sales manager, San Antonio, Tex.; **Thomas P. Gilroy**, traffic and sales manager, Charleston, S. C.; **Maurice B. Westobal**, assistant traffic and sales manager

Chicago area; **Harrison Townsend**, assistant to traffic and sales manager, Atlanta, Ga.; **Charles A. Glover, Jr.**, assistant traffic and sales manager, Atlanta, Ga.; **John J. Hollywood**, traffic and sales manager, Akron, O.

**M. J. Tanzer** has resigned as assistant general manager, Cleveland Stevedore Co. He will continue in the field of marine terminals operation in Cleveland or at some other Great Lakes port. (Kline)

**J. G. Van Nest** has been named assistant to **O. L. Lear**, purchasing

## New Cargocaire Film

The first color motion picture made of the Cargocaire System of dehumidification and ventilation has just been completed and released by the Cargocaire Engineering Corp. Produced by Palmer Pictures, this film explains how the economy of the United States depends to a large extent on a smooth flow of trade between the United States and the rest of the world.

One of the factors which tends to slow down the smooth flow is the sweat damage suffered by a ship's cargo while on the high seas enroute to its destination. The methods which modern ship operators are now using to combat this particular type of damage—the Cargocaire System of dehumidification and ventilation—are graphically depicted on the screen. Prints of this picture entitled, "Cargocaire For Cargo Comfort" are available for showing before groups of ship operators, traffic managers, importers and exporters and the members of the various Propeller Clubs. Request for the loan of a print should be addressed to Cargocaire Engineering Corp.

## Coming Events

Sept. 1-4—Fall Meeting, American Society of Mechanical Engineers, Hotel Utah, Salt Lake City, Utah.

Sept. 14-20—Eastern States Exposition, Industrial Arts Building, Springfield, Mass.

Oct. 26-30—ATA Convention, Biltmore Hotel, Los Angeles.

Nov. 10-12—39th Annual Meeting, Grocery Manufacturers of America, Inc., Waldorf-Astoria Hotel, New York City.

1948

Feb. 9-14—57th Annual Meeting, American Warehousemen's Assn., The Greenbrier, White Sulphur Springs, W. Va.

agent, Mack Truck Co., Allentown, Pa., and **Harry Oldham** was appointed superintendent of the New Brunswick, N. J., foundry.

**A. J. Darlson**, is in charge of newly opened Atlanta sub-district office of the Edison Storage Battery Div., Thomas A. Edison, Inc.

**J. G. Schaefer** was named merchandising manager, U. S. Royal tires. **Curt Muser** was appointed advertising and sales promotion manager. **R. W. Collings** was named to head a newly created marketing department, which will direct and assist the division's field organization.

**Fred M. Hunt** was appointed in an executive capacity for The Trailmobile Co., Cincinnati, O.

**W. Dean Keefer**, vice president, Lumbermen's Mutual Casualty Co., Chicago, has been appointed a member of the Standards Council, top technical body of the American Standards Assn., succeeding the late **Walter S. Paine** for his unexpired term ending Dec., 1949, and represents the National Safety Council.

**Henry St. Leger** has been appointed the first general secretary of the newly formed International Organization for Standardization (ISO).

**Ronald I. Friedline** was appointed western regional manager, The Truckstell Co. with headquarters in Los Angeles.

**Dennis C. Liles** was appointed assistant vice president, Merchants Refrigerating Co.

**Norbert B. Knapke**, assistant executive secretary, Fort Wayne (Ind.) Chamber of Commerce, and also manager of the Chamber's Industrial and Trade Development Dept. has resigned to become assistant to **Virgil E. Freeman**, vice president and general manager, North American Van Lines, Inc., Fort Wayne. (Kline)

The Cleveland Stevedore Co., Cleveland, has appointed **Ray Murray** as stevedore superintendent, in charge of all operations at the company's marine terminals. (Kline)

**Thomas P. Simpson** has been named director, Socony-Vacuum Oil Co., Inc., Research and Development Laboratories, succeeding **Paul V. Keyser, Jr.**, who was advanced to manager of the Socony-Vacuum lubricating oil department.

**Arlie A. O'Kelly** becomes associate director in charge of the chemical division; **G. H. S. Snyder**, assistant director in charge of the lubricating oil division; **Louis P. Evans**, supervisor of the process development division, and **John W. Payne**, associate supervisor.

**William W. Reed** has been appointed superintendent of the firm's refinery at Chicago, succeeding **William Hildebrandt**, retired.

**Charles W. Shaeffer**, manager of the Socony-Vacuum refinery, E. Providence, R. I., has retired.

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Advertising claims it is handcuffed with less than 5 percent and so on. Add them up and they often go to 150 percent or more of sales! In the case of sales vs. advertising it is possible that these exact percentages and the 2 to 1 ratio may coincide with management's estimates, but rarely probable. Who, then, is going to furnish facts—cold, hard, objective facts, not opinions based on wishful thinking—to help management allocate expense for the company's ultimate profit? How is the division to be made between line and staff? How much should marketing research get? Industrial engineering? Public relations, etc? What is the optimum ratio between fixed, semi-fixed and variable expense at all possible operating levels? These are not just bookkeeping problems. Either the vice president will try to make all the decisions, in which case he will soon find himself over his head in a welter of detail, or he will turn it over to the distribution controller who alone has all the facts, integrated and evaluated, at his command. There is no one else who can make equitable decisions.

But staff work is more than fact finding. After the facts it must propose specific action and standard procedure. It must forecast probable results. In a busy concern "facts" are all over the place. The sales manager has "facts"; so have advertising, transportation, public relations and the credit department. Whatever facts are picked up here and there (and who is to distinguish between fact and subjective opinion?) must necessarily be unorganized and useless for planning. Each staff department has its own facts. Do the "facts" of one department cancel the "facts" of another? Who is going to decide which facts take precedence, and, having decided, keep peace in the family?

There is one situation which is common to many enterprises, especially when they are expanding or when their industry is undergoing

important changes. After careful market studies it may be found that the relative sales potentials of some territories have become so unevenly divided that many districts have too much sales possibility for the man-power in them and others too little. It will be obvious that some adjustments and re-alignments must be made in order that all salesmen and district managers may have equal opportunities to earn money, and that the company may capitalize on all potentials. A juncture such as this will call for the judicious control of a single authority who has all the details at his command and who is able to make decisions that are entirely objective.

Ordinarily the market research department can only lay out on paper a theoretical, ideal division of territories and districts so that sales potentials are equitably distributed. This paper plan goes to the sales manager and other executives. There is immediate realization that men must be shifted, that territory must be added here and subtracted there. They know by experience that they are in for trouble with those men who must be moved and with those who will lose territory. It is possible to prove (on paper) that these moves are genuinely justified, that some men cannot do justice to their over-large potentials and that in the new arrangement they will make the same or more money. Even then the sales manager may wish to temporize, to make only part of the change to keep peace in the sales force. If this happens (and it usually does)—what then? The practical opinion of the sales manager that the changes recommended by research would result in more liabilities than assets cannot, of course, be ignored. But he could be wrong too. Perhaps this particular problem may be important enough to come to the attention of the vice president, but the majority of these and similar problems must be settled at a lower level. It is not a question, then, of forcing these changes upon use-

ful line executives, nor can they be allowed to by-pass valuable staff work by specious excuses to avoid unpleasant but necessary minor crises. It is, rather, a matter of an objective authority armed with *all* the facts and clothed with the necessary prestige and power to effect that compromise best suited to the interest of the company as a whole. Tactical problems such as this constitute just one of the functions of the distribution controller.

The formulation and presentation of reports of past performance, especially when standards are used, is a function in itself. The effective employment of reports based on comparisons with established standards has been described as a mechanism of control. Because of the intricate interlocking of departmental functions the planning, creation and utilization of all reports must be integrated for each department by the distribution controller. It will be his responsibility to see that reports go where they belong and on time, and, having been accepted, that they are used as intended.

How much of all this should be the personal concern of the vice president? He is the head man and is responsible in the sense that the captain of a ship is responsible, not only for the ultimate success of his department, but for every detail of its operation. Some will want to enter into particulars more than others, but it must be obvious that at best they have time for relatively little. The logic of necessity points again to the centralizing function of the distribution controller. Out of the voluminous data available he will filter only a few key statistics to the vice president, formulated in such a way that he can tell almost at a glance how his department is functioning. If standards are maintained there is little to concern him in internal operation. If not, if variances continue beyond tolerances and he wishes to trace inadequate results to their source, the data are already available for him.

# Public Warehouse Section

Warehousing is an integral part of distribution in several ways. Public warehouses are not merely depositories for the safeguarding of personal effects or industrial commodities; many are equipped to perform a wide range of services in addition to storage. Among these services are:

Bottling, boxing, financing, fumigating, grading, handling, hauling, labeling, motor transportation, mothproofing, moving, operation of public truck scales, quick-

freeze facilities, rental of space for manufacturing, offices and showrooms, rigging, sales representation, sample distribution, sorting, stevedoring and various other functions for efficient and economical distribution.

This special advertising section of public warehousing has been consolidated for ready reference and maximum utility. It includes merchandise, refrigerated, household goods and field warehouses. For shippers' convenience, states, cities and firms have been arranged alphabetically.

## BIRMINGHAM, ALA.

1880 — Sixty-seven Years of Service — 1947

### HARRIS TRANSFER & WAREHOUSE CO.

8 South 13th St., Birmingham 1

TWO WAREHOUSES

• STORAGE • Merchandise and Household Goods • CARTAGE • DISTRIBUTION • FORWARDING • Pool Cars Handled

Member of A.C.W.—A.W.A.—N.F.W.A.

Agents for Allied Van Lines, Inc.

## BIRMINGHAM, ALA.

### STRICKLAND TRANSFER & WAREHOUSE CO.

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General Merchandise Storage and Distribution  
Pool Car Service a Specialty—Motor Truck Service  
Centrally Located—Free Switching from All R.R.s.

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### SECURITY BONDED WAREHOUSE

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POOL CAR DISTRIBUTION

SERVING

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Receiving—STORAGE—Handling.  
Motor Freight Service to all points.  
6-car Private Siding. Reciprocal Switching.  
Efficient—Consistent Branch House Service.

## MONTGOMERY, ALA.

Albin D. Peden, President



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Household Goods Storage • Merchandise Storage  
Moving and Packing • and Distribution

## LITTLE ROCK, ARK.

ARKANSAS' LARGEST WAREHOUSE  
Merchandise—Household Storage



### TERMINAL WAREHOUSE CO.

Member American Warehousemen's Association  
American Chain of Warehouses

LITTLE ROCK

ARKANSAS

Fireproof  
Constructed

Pool Car  
Distribution

Agent  
Allied Van  
Lines



## LITTLE ROCK, ARK.



### COMMERCIAL WAREHOUSE CO.

801-7 East Markham Street

A Complete Branch House Service  
Fireproof • Low Insurance  
Private Railroad Siding • Quick Service

Represented by



CHICAGO 8  
1925 NEWBERRY AVE.  
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Penn. 6-0967

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Individually owned, personal service

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Household Goods—Furniture Van Service

Shipping—Packing—Crating

Machinery—Low bed winch equipped

673 W. Broadway trucks and trailers Glendale 4, Cal.

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OPERATING WAREHOUSES  
IN PRINCIPAL CALIFORNIA CITIES  
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VAN & STORAGE CO.

102 N. MIDLAND AVE.  
Bill Elliott Manager

## LOS ANGELES, CAL.

The



STORAGE  
DISTRIBUTION  
TRANSPORTATION

### CALIFORNIA WAREHOUSE

1248 WHOLESALE ST.  
Merchandise Exclusively

LOS ANGELES 21

Sprinklered—A.D.T.

## LOS ANGELES, CAL.

SERVING THE PACIFIC COAST ★ THE MOST POPULAR MOVER IN THE WEST

Member NFWA & AWA



**LYON**  
VAN & STORAGE CO.

General Offices: 1930 So. Vermont Ave.  
Frank A. Payne, Pres.

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MEMBER OF A.W.A.

### PACIFIC COAST TERMINAL WAREHOUSE COMPANY

1340 E. SIXTH ST. LOS ANGELES 21, CAL.

MERCHANDISE STORAGE AND DISTRIBUTION

Located in the heart of the Wholesale District



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U. S. Customs Bonded Warehouse No. 11  
Cool Room Accommodations

For Complete Information Write Us Direct  
or Handle with Our Associates

CROOKS TERMINAL WAREHOUSE, INC.

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485 W. Harrison St. 271 Madison Ave. 1104 Union Ave.  
Or Nearest General Agency Union Pacific Railroad

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### Star Truck & Warehouse Co.

COMPLETE FACILITIES EFFICIENT SERVICE  
Storage SPRINKLERED—A.D.T. Drayage  
Distribution  
Represented by Distribution Service  
350,000 Square Feet 117 Piece Motor Equipment  
New York Chicago San Francisco

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SINCE 1900

GENERAL MERCHANDISE

Warehousing—Distributing—Draying

HOWARD TERMINAL

95 Market Street, Oakland 4  
Warehouses Steamer Piers



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Warehouse & Distributing Co.

STORAGE

MERCHANDISE — HOUSEHOLD GOODS  
POOL CAR DISTRIBUTION — DRAYAGE  
Your Detail Handled as You Want It

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ARTHUR E. TRAVIS, President

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Merchandise and Household Goods Warehouse  
Specializing in General Merchandise, Hops and Flour.  
Private Siding on S.P.R.R.—10-Car Capacity. Distribu-  
tion of Merchandise and Household Goods Pool Cars.

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"Your BRANCH OFFICE in San Francisco"

### GIBRALTAR WAREHOUSES

CUSTOM BONDED — GENERAL MERCHANDISE

Complete Warehousing and  
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POOL CAR DISTRIBUTION

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REPRESENTED BY ASSOCIATED WAREHOUSES INC.

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Largest and most complete storage and trucking service  
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Operating in San Francisco, Oakland,  
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Member: American Warehousemen's Assn.  
American Chain of Warehouses, Inc.

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Phone Underhill 7500

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Complete Household Goods  
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Pool Car Distribution

Tim Griffin, Pres. - Jim Cummins, Sec. Treas.



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Member  
American Warehousemen's Association  
Distribution Service, Inc.

Complete  
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General Merchandise  
United States Customs and  
Internal Revenue Bonded Storage.  
Draying and Pool Car Distribution  
Office Accommodations and Telephone Service.

San Francisco Warehouse Company

605 Third Street  
SAN FRANCISCO 7

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MEMBER: Allied Distribution, Inc.

### SOUTH END WAREHOUSE COMPANY

Free Storage—Custom Bonded—Internal Revenue Bonded  
Drayage Service

King and Company

Draymen

## DENVER, COLO.

Fork Lift & Pallets exclusively



THE BANKERS WAREHOUSE COMPANY

TELEPHONE AL 3451 2145 BLAKE STREET, DENVER 2, COLORADO

MERCHANDISE STORAGE—POOL CAR DISTRIBUTION  
A.D.T. Protection—Private siding C. B. & Q.—U.P. Also operate  
Warehouse at Brighton, Colo.

Represented By  
Associated Warehousemen, Inc.—Chicago & New York City



GIVING BETTER SERVICE TO THE ROCKY MOUNTAIN  
REGION . . .

NORTH DENVER  
Transfer &  
Storage Co.

Modern, fireproof warehouses—  
unexcelled in the West. Custom-  
bonded storage and office space  
available.

Office 2016 BLAKE ST.

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Mon. 5531

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NEW YORK 18  
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DENVER, COLO.

**WEICKER** Complete Service

- ★ Mds. & Hhg. Goods Storage
- ★ Pool Car Distribution
- ★ Moving, Packing, Forwarding

We Operate a statewide, daily motor freight service under regulation of the Public Utilities Com. Connection with Interstate Truck Lines to Principal Cities.

SILVER VAULTS, CEDAR LINED RUG VAULT, FUMIGATING VAULT, PRIVATE LOCKERS



**THE WEICKER TRANSFER & STORAGE CO.**

1700 Fifteenth, Denver 17, Colo.

Member of N.F.W.A.—A.O.W.—A.W.A.—Dist. Serv., Inc.  
Agent, Allied Van Lines

PUEBLO, COLO.

Member of May. W.A.—A.W.A.—Colo. W.A.



**BURCH** WAREHOUSE AND TRANSFER CO., INC.

General Office and Warehouse

200 SO. SANTE FE AVENUE

Modern Sprinklered Fireproof Building—Freight Forwarding and Distribution—Household and Merchandise Storage

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128-130 SOUTH MAIN

**WEICKER** TRANSFER & STORAGE CO.

- ★ Modern Sprinklered Building
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- ★ Household and Merchandise Facilities
- ★ Freight Forwarding and Distribution

★ AGENT ALLIED VAN LINES—

BRIDGEPORT, CONN.



**The Bridgeport Storage Warehouse Co.**

General Offices 10 Whiting St.

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General Merchandise Storage and Distribution

Total Storage Area 87,000 Sq. Ft. Household Goods, Moving, Packing and Shipping

N. Y., N. H. and H. R.R. Siding



HARTFORD, CONN.

**LET DEWEY DO IT!**

Warehousing and Distribution. Household Goods Storage and Moving since 1899

Agents United Van Lines

GEO. E. DEWEY & CO.  
335 Trumbull St., Hartford 3, Conn.



HARTFORD, CONN.

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**HARTFORD DESPATCH** and WAREHOUSE CO., Inc.

410 CAPITOL AVENUE, HARTFORD, CONN.

U. S. Bonded Warehouse Pool Car Distribution Household and Merchandise facilities Private Siding Our fleet covers Connecticut and Massachusetts daily. Warehouses at Bridgeport, Conn., and Springfield, Mass.

Members: NFWA—AWA—ACW—AVL Agents

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**NATIONWIDE DESPATCH & STORAGE CO.**

9 Center St., Hartford 5, Conn.

20,000 sq. ft. of Storage Space—Consign shipments via N. Y., N. H. & H. R. R.

Agents: North American Van Lines, Inc. Members: Conn. Motor Truck Assn., Hartford Better Business Bureau, Nationwide Group of Movers and Warehousemen.



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Established 1902

**SILIENCE** Warehouse Co., Inc.

HOUSEHOLD GOODS EXCLUSIVELY

Fireproof Warehouses

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Modern Fireproof Merchandise Warehouse Private seven-car Siding, adjacent to Steamship and R. R. Terminals. Pool and stop over cars distributed. Merchandise Storage.

Motor Truck Service to all towns in Connecticut. Low Insurance Rate. Prompt, Efficient Service.

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Merchandise, automobiles, furniture—23 buildings—ADT supervised watchman service—Low insurance rates—15 car siding—Central location—Daily truck delivery service covering Connecticut and southern Massachusetts—Bonded with U.S. Customs.

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**The E. J. Kelley Co. Storage Warehouses**

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One of New England's Largest Transportation Companies

Household Goods Packed, Stored, Shipped.

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Pool Cars Distributed in All Parts of Connecticut Branch Offices in Bridgeport, Hartford, New Haven & Waterbury, Conn.; Springfield & Worcester, Mass.

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**THE JACOBS TRANSFER COMPANY, INC.**

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61 Pierce Street, N. E. Washington 2, D. C.

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**SERVICES in Washington and its Commercial Zone:**

**1. POOL CAR DISTRIBUTION**

On B. and O. R.R. Siding

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Any Railroad—B. and O. Nearer

**3. LOCAL CARTAGE All Types**

Fast—Economical—Dependable

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More than two million cubic feet of Storage space

**DON'T MAKE A MOVE WITHOUT SHIPPING TO ...**



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First, K and L Streets, N. E., Washington 2  
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Storage of general merchandise.  
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THE SOUTH'S LARGEST FIREPROOF WAREHOUSE  
EXCLUSIVELY FOR HOUSEHOLD GOODS & OFFICE EQUIPMENT

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Local & Long Distance Moving

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MERCHANDISE STORAGE—POOL CAR DISTRIBUTION

Fireproof  
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HARRY GARDNER, Vice-Pres.

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TWENTY-FIVE YEARS OF SERVICE IN THE STORAGE,  
DRAYAGE AND DISTRIBUTION OF POOL CAR MERCHAN-  
DISE. 54,640 SQUARE FEET SPACE. SOUTHERN RAILWAY  
SIDING, CAPACITY 12 CARS, RECIPROCAL SWITCHING.

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FLORIDA'S LARGEST WAREHOUSE

**Union Terminal Warehouse Company**

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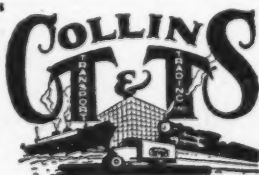
Merchandise Storage—Custom Bonded—Pool Car Distribution  
Reconsigning—Trucking Service—Trackage 52 Cars  
Reinforced Concrete—Sprinkler System—A.D.T. Service  
Insurance Rate 12 Cents

Rental Compartments—Sub-Package  
Members A.W.A.—A.C. of W.—J.W.A.

## MIAMI, FLA.

Pier 1, Municipal Docks

Merchandise and House-  
hold Goods Storage—Mov-  
ing and Packing—Com-  
mercial Trucking—Pool  
Car Distribution—Private  
Siding



## MIAMI, FLA.

**INTERNATIONAL BONDED WAREHOUSE CORP.**

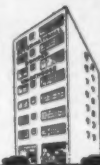
U. S. CUSTOM BONDED

Member of American Warehousemen's Association  
and Southeastern Warehousemen's Association  
Negotiable Warehouse Receipts

**MERCHANDISE STORAGE**

FEC RR SIDING—2 CARS

219-251 S.W. First Court (36) Tel. Miami 2-1208



## ST. PETERSBURG, FLA.

Established 1927

**Public Bonded Storage Warehouse**

3435 - 7th Ave., So. St. Petersburg 1, Fla.

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Merchandise Household Goods  
Modern—Sprinklered Building—Private Railroad Siding  
Local Hauling, Packing & Pool Car Distribution

## TAMPA, FLA.

"Your Tampa Branch House"



**CALDWELL BONDED WAREHOUSES**

MERCHANDISE—HOUSEHOLD GOODS  
Member American Warehousemen's Assn.

## TAMPA, FLA.

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**TERMINAL**

P. O. Box 2309

TAMPA 1

Merchandise Storage  
Pool Car Distribution  
Commercial Cartage  
Field Warehousing  
Water and Rail connections  
Low Insurance Rate  
Household Goods Storage  
Moving—Packing—Shipping  
Agents Allied Van Lines  
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Member: AWA—NFWA—AWI

## ATLANTA, GA.

**AMERICAN BONDED WAREHOUSE**

Affiliated with

**SOUTHEASTERN BONDED WAREHOUSES**

"Better Warehouse Service"

651-653 Humphries St., S. W.—Sou. R. R.

Merchandise Warehousing Pool Car Distribution  
Sprinklered A.D.T. Burglar Protection A.W.A.



## ATLANTA, GA.

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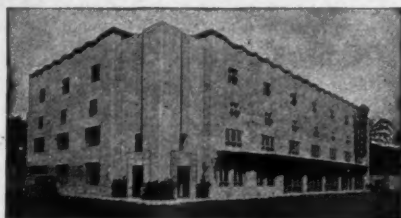
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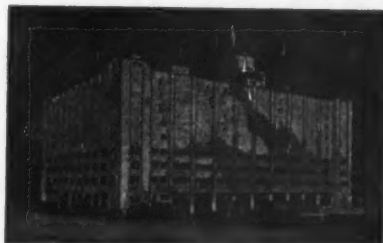


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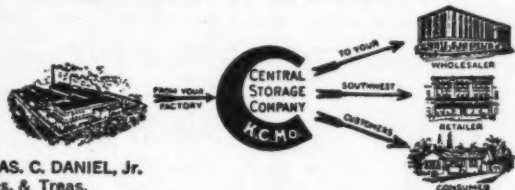
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Complete Facilities for Storage of Merchandise and Household Goods

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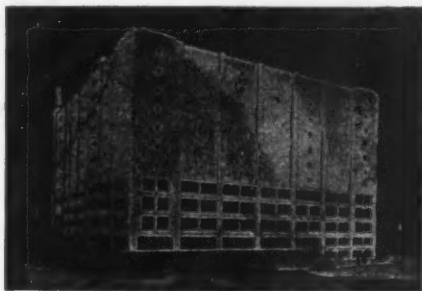
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M. KENNETH FROST, Vice President EDWARD T. JENKINS, Treasurer

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Setting up a sales record system is the theme of an article by Julius B. Kaiser which will appear in the September issue of DA.

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All buildings fully fireproof construction

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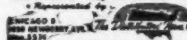
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FOURTH AND CHERRY, N.E.

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Merchandise, Household Goods, Cold Storage

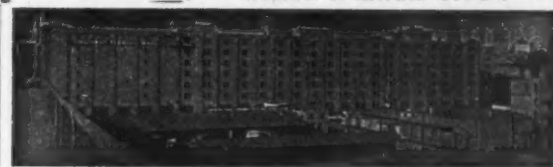
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 Merchandise Storage, Household Goods, Transferring, Forwarding  
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 Complete Warehousing Service for Storage and Distribution of General Merchandise.  
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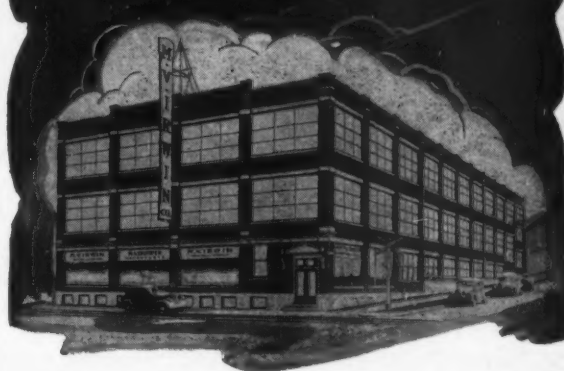
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- MOTHPROOFING
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- HAULING
- LABELING
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Over three million square feet of modern storage space, situated to serve metropolitan Philadelphia to the best advantage.

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Connections with both the Pennsylvania Railroad and Reading Company. Completely equipped pool car department. Store-door delivery. Convenient to Delaware River piers. Write for particulars.

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Merchandise Storage Direct Sidings-Penna. RR. and Reading RR. Pool Car Distribution  
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New York (17) Deliveries Chicago (6)  
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Members A. W. A.

### PITTSBURGH, PA.

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**STORAGE IN TRANSIT - PRR SIDING  
COMPLETE TRUCKING FACILITIES  
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Established 1918*

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**Cold Storage—Merchandise—Household Goods**

3 Warehouses with private sidings on Erie & P RR's  
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Cold Storage for furs — Cold Storage lockers — Quick  
Freeze space.

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*Prompt and Efficient Service*  
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Intrastate and Interstate Common Carrier  
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Complete ADT burglar and fire alarm protection

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Storage all kinds of General Merchandise, Pool Car Distribution, Lowest Insurance.  
Frackage facilities 60 cars. Dockage facilities on deep water.  
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General merchandise and household goods storage.

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"Good housekeeping, accurate records, Personal Service"  
Located in the center of the Jobbing & Wholesale District

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"Service to the entire Mid-South"

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**POOL CAR DISTRIBUTION**  
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ESTABLISHED 1894

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Warehouse storage, dependable service, free carting, Local cartage delivery.  
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**TEXAS STORAGE COMPANY**

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Merchandise and Household Goods  
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**CORPUS CHRISTI WAREHOUSE AND STORAGE COMPANY**

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Storage Distribution Drayage  
MERCHANDISE EXCLUSIVELY  
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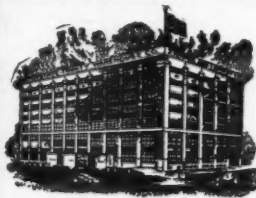
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Modern Fireproof  
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Lowest Current Insurance Rate  
Fireproof Storage of Household Goods, Autos & Merchandise, Stn.  
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Our modern Centrally located warehouse is completely equipped to serve  
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Since  
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Associated with Distribution Service, Inc.

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Located in the heart of the jobbing district  
MERCHANDISE STORAGE—POOL CAR DISTRIBUTION  
Lowest Insurance Rates Automatic Sprinkler Watchman

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OUR  
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# FEDERAL WAREHOUSE CO.

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# Better Warehousing in HOUSTON

We operate a modern low insurance rate warehouse in the center of the wholesale,  
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Warehouses Sprinklered Throughout

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SERVICE THAT COUNTS



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OVER 50 YEARS IN HOUSTON

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250,000 sq. ft. sprinklered space.

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Complete Storage and Distribution Service

Over 50 years of satisfactory service

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HOUSEHOLD — MERCHANTS

DISK — COLD STORAGE —

CARTAGE

DISTRIBUTION

INSURANCE RATE - - - 10c

Members of 4 Leading Associations



## SAN ANTONIO, TEXAS



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General Storage and Distribution from the Center of  
East Texas. Specializing in Pool Car Distribution  
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GENERAL WAREHOUSING

POOL CAR DISTRIBUTION

MERCHANDISE AND COLD STORAGE

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Fireproof

Sprinklered

Insurance rate 18c. Merchandise Storage.

Pool Car Distribution. Office Facilities.

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Over 1,000,000 cubic feet reinforced concrete Sprinklered Space

Insurance Rate 11 Cents

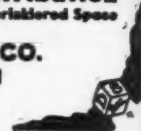
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Represented by

DISTRIBUTION SERVICE, INC.

New York - Chicago - San Francisco



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Storage—Pool Car Distribution

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Member AWA—UWL—UWA—AWI



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### FOR BETTER SERVICE SECURITY STORAGE & COMMISSION CO.

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Over 39 Years' Experience

Merchandise Warehousing - Distribution

Sprinklered Building - Complete Facilities

Lowest Insurance Cost - A.D.T. Watchman Service

Office Accommodations - Display Space

Represented by American Chain of Warehouses, Inc.

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MEMBER:

A.W.A.—U.W.A.



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Household • Automobile Storage • Merchandise

### NEW-BELL STORAGE CORPORATION

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MODERN SPRINKLER EQUIPPED WAREHOUSE

50,000 SQUARE FEET PRIVATE RAIL SIDING

Lowest Insurance Rate in Norfolk. Pool Car Distribution

WE SPECIALIZE IN MERCHANDISE STORAGE

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AGENTS AERO MAYFLOWER TRANSIT COMPANY

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HOUSEHOLD GOODS MOVED, PACKED, SHIPPED

POOL CAR TRANSFER TRUCKING SERVICE

LARGE FIREPROOF WAREHOUSE

OPEN YARD STORAGE AVAILABLE

LOCATED ON N. & W. SIDING

### PRUDENTIAL STORAGE and WAREHOUSE COMPANY

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Fine Warehousing Since 1914

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500-530 FRONT STREET

COLLECTIONS • POOL CARS • DISTRIBUTION  
MOTOR VAN AND LIFT VAN SERVICE  
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Established 1892

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Write for Booklet—"7 POINT DISTRIBUTION"

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Three Fireproof Storage Warehouses—810,000 Cubic Feet Floor Space—Automatic Sprinkler System—Low Insurance Rates—Careful Attention to Storage—Packing and Shipping of Household Goods—Private Railroad Biding—Pool Car Distribution—Motor Van Service to All States—Freight Truck Line.

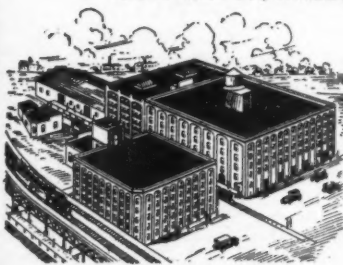
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Established 1908

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160,000 SQ. FT.  
SPACE

BUILDINGS  
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U. S. BONDED  
& PUBLIC  
WAREHOUSES  
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STORAGE &  
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INSURANCE  
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20c PER \$100  
PER YEAR



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Finance and Storage  
Pool Car Distributors  
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ROANOKE 7, VIRGINIA



ROANOKE, VA.

## ROANOKE PUBLIC WAREHOUSE

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Capacity 500 Cars

Private Railroad Siding



Automatic Sprinkler

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Member of American Chain of Warehouses

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(Highest financial rating; new fireproof; A.D.T. sprinklered buildings; lowest insurance rate (10.2c); modern equipment.

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J. R. GOODFELLOW, Pres.

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Cold Storage—Dry Storage—Rentals—Pool Car Distribution—Office Rentals—Fireproof, brick const.; Sprinkler system; Insurance rate; 12.5c. Biding accounts with all rail lines.

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Seattle's One-Stop Warehousing Service



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Lloyd X. Coder, Pres.-Mgr.

Est. 1919

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Warehousemen & Distributors of

General Merchandise and Household Goods

Office and Desk Space—Low Insurance Rates

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A NATIONAL DIRECTORY, lists members of the Contract Carrier Conference of the American Trucking Assn., Inc. Listing is geographical and includes names and addresses of approximately 1,000 contract carriers. 10c. American Trucking Assns., Inc., 1424 16th St., N. W., Washington 6, D. C.

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SPEED-JACK DRIVES BULLETIN, Features drive tables and charts to enable quick selection of proper size sheaves for desired speed ranges. The American Pulley Co., Philadelphia 29.

DICTIONARY OF FOREIGN TRADE, by Frank Henius, revised, 1947, edition, over 1,000-pp., \$12.50, includes definitions of foreign trade terms, detailed explanations of practices and procedures, excerpts from original documents and forms. Prentice-Hall, Inc., 70 Fifth Ave., New York City 11.

STEAMSHIP DIRECTORY, chart lists steamship companies operating out of the Port of New York and gives information on all airlines' flights from the city's airports and all railroads serving the port area, etc. 25c. N. Y. Journal of Commerce, 63 Park Row, New York City 15.

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REFERENCE BOOKLET ON PLASTICS, 24-p. illus. booklet, contains glossary of plastic terminology and descriptions of the properties of plastics and also describes the possibilities for the use of plastics in industry. G. Felsenthal &amp; Sons, 4100 W. Grand Ave., Chicago 51.

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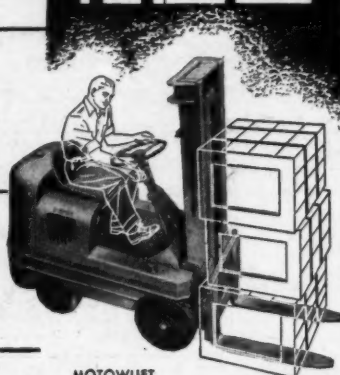


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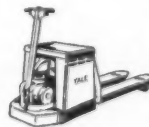
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